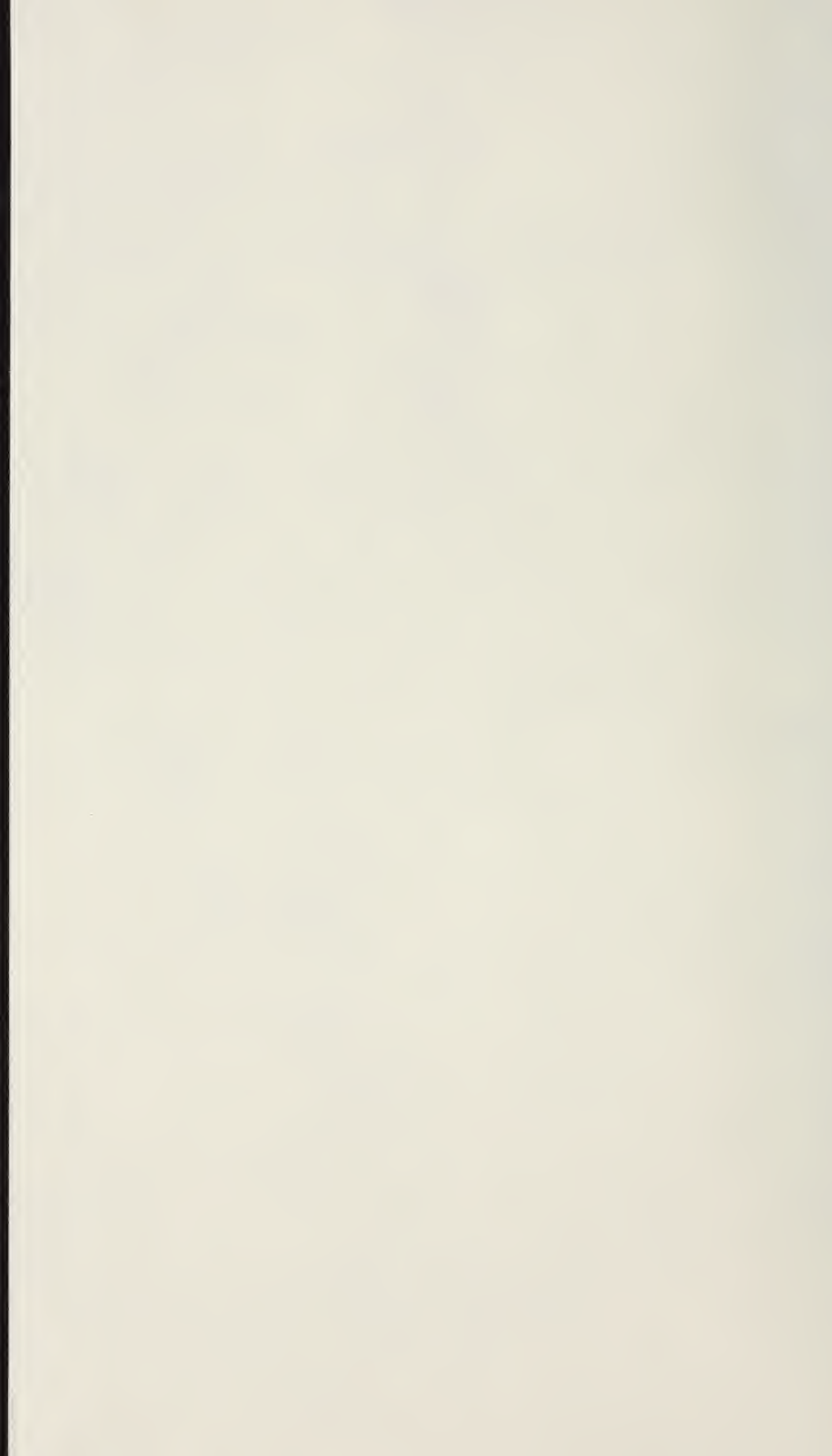


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HANDBOOK
OF
PHILOSOPHY.

Notes of Lectures Delivered at Michigan
University During

1876-7.

DIVISION I.

PSYCHOLOGY.

BY
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TO THE
CLASS OF '77.

AT WHOSE REQUEST THESE "NOTES" WERE PRE-
PARED, AND AT WHOSE EXPENSE THEY WERE
PUBLISHED, THIS SMALL VOLUME IS
DEDICATED WITH SENTIMENTS OF
RESPECT AND AFFECTION.

"I wish to give you the materials on which an independent judgment may be formed; to enable you to reason as I reason, if you deem me right; to correct me if I go astray; and to censure me if you find me dealing unfairly with my subject."—TYNDALL.

B. F. C.

BOOK I.

PROLEGOMENA.

CHAP. I. *Philosophy Defined.*

I. Philosophy has been defined, in general, as "the Search after Truth," not particular, relative, contingent truth, but *universal, necessary, and absolute Truth*.

MORELL: "Historical and Critical View of the Speculative Philosophy of Europe in the Nineteenth Century," pp. 19, 25. CARLYLE: "Critical and Miscellaneous Essays," vol. i, p. 94. COLERIDGE: "Works," vol. iii, p. 249.

Truth is the correspondence or agreement of the content of knowledge with actual existence or Reality. Truths are of three kinds: (1) Truths of Fact, or Experiential Truths; (2) Truths of Reason, or Rational Truths; (3) Truths of Inference, or Scientific Truths.

1. *Experiential Truth* has for its object the phenomena of external and internal experience. It is that agreement of the content of knowledge "with the immediate outer or inner perceptions which exist when the soundness of the mind and of the bodily organs is undisturbed." It is relative and contingent knowledge, and its opposite is both thinkable and possible.

2. *Rational Truth* has for its object the eternal ideas or principles "which the Divine creative thinking has built into things." It is the agreement of the content of knowledge with absolute Reality. It is, therefore, universal and necessary, and its contradictory is unthinkable and impossible.

3. *Scientific Truth* has for its object the *relations* of co-existence, resemblance and succession among phenomena, which are the basis of all classification and inductive inference; and the *correlations* between phenomena and ultimate reality (substances, causes, ideals, and reasons or ends,) which are the foundation of all deductive inference (syllogistic reasoning).

II. The immediate object of Philosophy is to attain the insight of First Principles of knowledge and existence—the ultimate grounds, causes, ideals (archetypes), and reasons or ends of all phenomena.

HAMILTON: "Metaphysics," p. 41. UEBERWEG: "History of Philosophy," vol. i, p. 1; "Logic," p. 11. STÖCKL: "Lehrbuch der Philos.," vol. i, p. 4. FLEMING: "Vocab. of Philos.," in loco.

A PRINCIPLE (*principium*, ἀρχή, beginning,) is “an absolutely or relatively Original Element, on which a series of existences and cognitions depends.”—UEBERWEG. “The primary source from which everything *is, becomes, or is known.*”—ARISTOTLE.

1. A Principle of Knowledge (*principium cognoscendi*) is (1) the common starting-point of a series of cognitions, the phenomenal, real, and relational (formal) intuitions—the original *Percepts, Ideas, and Relations*; (2) a universal and necessary Law of Thought, which has been attained by immediate abstraction.

2. A Principle of Existence (*principium essendi aut fiendi*) is the common basis of a series of real essences or processes, that is, the *material, efficient, formal, or final cause.*

3. An Absolute First Principle (*principium principiorum*) is the “ultimate of all ultimates,” in which all essences, causes, ideals and reasons are reduced to Unity—that which is unoriginated, self-existent, unconditioned, absolute.

III. The final aim of Philosophy is to reduce all knowledge to UNITY—the Unity of one absolutely First Principle or “Ultimate of all Ultimates,” which contains, predetermines and produces all things in relation to a Final Cause, Purpose, or End.

GREEN: “Spiritual Philosophy,” vol. i, p. 1. COLERIDGE: “Works,” vol. ii, p. 42. HAMILTON: “Metaphysics,” p. 42. PLATO: “Philebus,” (Jowett’s Trans., vol. iii, p. 161.) HUTTON: “Theo. and Lit. Essays,” vol. i, p. 50. MURPHY: “Scient. Basis of Faith,” 195, 196.

UNITY is either Formal, Substantial, or Causal.

1. *Formal Unity* is the unity of thought, the highest product of abstraction and generalization—the *summum genus*, or highest concept. (Idealism.)

2. *Substantial Unity* is the unity of substance, and all differences of kind are but modes of one eternal and infinite substance. (Absolute Identity.)

3. *Causal Unity* is unity of origination, a unity of Power and Reason (WILL), which produces and determines all diversity. (Theism.)

CHAP. II. *Distinction between Philosophy and Science.*

Science is the reduction of individual facts or phenomena to general concepts (classification according to resemblance), and the investigation of these conceptions in their relations of co-existence and succession, in order to discover uniformities of relations—that is, Laws (induction). Philosophy is the bringing of these generalizations of Science into harmony with *à priori* rational ideas or First Principles—“the mutual determination of *à priori* and empirical elements.” It is the adequate explana-

tion, or interpretation, of all phenomena through the rational insight of First Principles (substances, causes, ideals, and ends), and the reduction of all principles to an ultimate Unity.

Philosophy must, therefore, include Science, but Science does not necessarily include Philosophy. "Science determines what is ($\zeta\tau\iota$); Philosophy, why it is ($\delta\acute{o}\tau\iota$)."—TRENDLENBERG: "Elem. of Logic," p. 76.

MURPHY: "Scientific Basis of Faith," pp. 27, 23, 29. SPENCER: "First Principles," pp. 17, 18, 84. MANSEL: Art. "Metaphysics," Encyc. Brit., vol. xiv, p. 555.

Science is the foundation, Philosophy is the summit and completion, of real knowledge. All Science approaches perfection as it approaches to a unity of First Principles. "It is the very business and work of Science to rise from the visible to the invisible—from what we observe by sense to what we know by reason."—ARGYLL: "Reign of Law," p. 108. "The deeper natural science penetrates from outward phenomena to universal laws, the more she lays aside her former fear to test the latest fundamental questions of being and becoming, of space and time, of matter and force, of life and spirit, by the scale of the inductive method. . . . So much the more will the gap be narrowed which since the time of Kant has separated science and philosophy."—Prof. COHN: "*Nature*," vol. vii, p. 159.

"A true and enduring system of Philosophy must embrace both Physics and Metaphysics. However material our postulates may be, they must insensibly lead the argument into the immaterial, inasmuch as force is immaterial. A true system must embrace geometry and the algebras—not their merely physical and symbolical terms, but their high, deep, and purely intellectual principles, which appertain to Psychology, and which, expressing an absolute universality of Mind and Purpose, lift us freely and positively into studies of the Infinite."—WINSLOW: "*Force and Nature*," p. 5.

CHAP. III. *A Science of Mind the foundation of a Philosophy of Nature.*

The highest generalizations of physical research bring us face to face with certain conceptions, or more properly ideas, which are metaphysical and purely rational. Such are the ideas of Substance, Cause, Force, Life, Mind, Purpose, Law, Unity,

Identity, the Infinite and the Perfect. These ideas are not transformed sensations, neither are they generalizations or abstractions from sensible experience. They are the logical antecedents of all experience, and the light of all our intellectual constructions. They are the principles which inform sensations, and coördinate and interpret all phenomena, and they enter, as constitutive elements, into all our notions of things. It is only by the synthesis of sensation and idea that man intellectually perceives the reality of things.

“Man is the interpreter of nature,” and Philosophy is the right interpretation. Nature, or the aggregate of sensible phenomena, is “one vast *Mythus*” or symbolical representation, “an unspoken alphabet,” an exponential image of the great archetypal ideas of the all-pervading Reason of the universe. The senses place before us the characters or symbols of the book of nature, but these convey no knowledge apart from the ideas of reason, which are the key to the interpretation of nature. We can only interpret nature in “terms of thought.” The solution of phenomena cannot be derived from phenomena. “The laws of motion cannot account for the origin of Force.” Co-existence and succession afford no explanation of Order. The idea of Unity is not evolved from multiplicity and diversity, and no addition of the finite can give the idea of the Infinite.

Therefore two things are necessary to a Philosophy of nature, viz., Facts and Ideas—the observation and classification of phenomena, and the illumination of phenomena by the *à priori* ideas of the intuitive reason, or the interpreting Mind. If we know nothing of mind and its modes of functioning, we know nothing about what we know, or even that we know. The knowledge of mind, of its ideas and laws, must therefore be the foundation of a Philosophy of Nature.

WHEWELL: “*Novum Organon*,” pp. 5, 6. COLERIDGE: “*Works*,” vol. ii, pp. 421, 441, 446. UEBERWEG: “*Logic*,” p. 2. MIVART: “*Genesis of Species*,” p. 273. TYNDALL: “*Frag. of Science*,” pp. 66, 130. POWELL: “*Unity of Worlds*,” *Essay I*, § ii.

CHAP. IV. *A Science of Mind possible.*

A Science of Mind is possible, for the same reasons and on the same conditions that a Science of Nature is possible. Facts equally distinct, and equally undeniable, are given as the foundation of both sciences. The facts of external perception, or sense

perception, are the foundation of natural science. The facts of internal perception (thought, feeling, and volition), are the foundation of mental science. The objection that we know nothing of the ultimate constitution of Mind or Spirit, has no force. We are equally ignorant of the ultimate constitution of Matter. The phenomena of mind may be observed and classified, laws of mental phenomena may be inductively ascertained, and some light may be thrown upon the nature of the ultimate substance or substratum which is the ground and source of the phenomena. As the naturalist knows and applies electro-magnetism in its relations, without comprehending its essence, so we can duly appreciate spirit and matter, in their relations to each other as body and mind, without being able to explain their nature. All the phenomena and laws of physical Optics have been carefully studied, and are well understood, but the existence and constitution of the "luminiferous ether" is still hypothetical. No theory yet proposed is adequate to the explanation of all the phenomena. But ignorance of the nature of the medium in which the phenomena take place, is no bar to a science of Optics. The facts have been coördinated, and the laws of the phenomena have been discovered. So our ignorance of the essential nature of Spirit as the subject of mental phenomena, is no bar to an exact science of Mind. Our instincts, propensities, sensations, perceptions, mental reproductions, generalizations, inferences, sentiments, form a real body of actual phenomena which are as capable of being classified and reduced to laws as the observed facts of nature.

"The claims of Psychology to rank as a distinct science are thus, not smaller, but *greater* than those of any other science."

—SPENCER: "Psychol.," vol. i, p. 141.

FEUCHTERSLEBEN: "Med. Psychol.," p. 79.

CHAP. V. *Utility of Philosophical Studies.*

1. As a mental discipline.
2. As a means of culture.
3. As related to Theology.
4. As related to History.
5. As related to Ethics.

CHAP. VI. *Classification of the Object-Matter of Metaphysics,*
(*Philosophy proper.*)

I. PSYCHOLOGY (Inductive Science of Mind).

1. *Phenomenal Psychology*, (subjective inquiry): What are the Facts or Phenomena to be studied in their relations of resemblance, co-existence, and succession?

- | | |
|----------------------------|-------------------------|
| (1) Cognition, "I know," | } <i>Phenomenology.</i> |
| (2) Feeling, "I feel," | |
| (3) Volition, "I resolve," | |

2. *Dynamical Psychology*, (subjective inquiry): What are the Powers and capacities indicated by this classification?

- | | |
|------------------|---------------------------------------|
| (1) Intellect. | <i>Intellectual Philosophy.</i> |
| (2) Sensibility. | <i>Philosophy of the Sensibility.</i> |
| (3) Will. | <i>Philosophy of the Will.</i> |

II. NOMOLOGY. 3. *Nomological Psychology*. What are the Laws by which the mind is governed in its cognitions, thoughts, feelings, and determinations?

- (1) Laws of Cognition (Intuition): *Primordial Logic* (Noetic).
- (2) Laws of Thought (Classification, Judgment, Reasoning):
Formal Logic (Dianoetic).
- (3) Laws of Association (Memory): *Mnemonics*.
- (4) Laws of Feeling (Sentiment, Emotion): *Pathematics*.
- (5) Laws of Imagination: *Æsthetics*.
- (6) Laws of Self-determination and Moral Action: *Ethics*.

III ONTOLOGY (Deductive Philosophy).

"What are the *Necessary Inferences* from the Facts and Laws given by the Inductive Science of Mind as to the Ultimate Grounds, Causes and Reasons of all Phenomena?"

(1) The Ultimate Substratum of all statical, sensible phenomena—MATTER: *Hylekology*.

(2) The Ultimate Ground of all dynamical and intelligible phenomena—SPIRIT: *Pneumatology*.

(3) The Ultimate of all Ultimates—GOD: *Theology*.

PSYCHOLOGY.—The science of psychical phenomena—"the science conversant about the phenomena, or modifications, or states of the Mind, or conscious subject, or Soul, or Spirit, or Self, or Ego."—HAMILTON: "Metaphysics," p. 91.

NOMOLOGY (Nomological Psychology).—That branch of Philosophy which treats of the Laws which govern the operations of the Mind, (HAMILTON: "Metaphysics," p. 86); especially,

“the regulative Laws, on whose observance rests the realization of Truth in the theoretical activity of man,” and the realization of Right in the practical activities of man.—UEBERWEG: “Logic,” p. 6.

ONTOLOGY.—The Philosophy of Being, or Ultimate Reality, as distinguished from phenomena. It “endeavors to evolve true propositions respecting God, the soul, and nature, as *à priori* objects of knowledge, and whether by deduction, intuition, or dialectic, to reach the essence of their necessary being.”—MARTINEAU: “Essays,” p. 238, 2d Series.

UEBERWEG: “Logic,” pp. 11, 12.

CHAP. VII. *Problems of Philosophy.*

I. THE PSYCHOLOGICAL PROBLEM.

(Has respect to the *Source* of our knowledge.) Are there in the human mind any elements or principles of knowledge not derived from sensation and sensible experience?

Classification of Schools of Philosophy in view of this Problem.

(1) They who affirm that all the elements, or principles, of human knowledge are derived from sensation and sensible experience, constitute the SENSATIONAL OR EXPERIENTIAL SCHOOL.

(2) They who affirm that there are elements, or principles, of human knowledge which are not derived from sensation, and that there are constitutive elements of knowledge which are given by the reason, constitute the RATIONAL OR TRANSCENDENTAL SCHOOL.

II. THE COSMOLOGICAL PROBLEM.

(Has respect to the *Validity* of our knowledge of the phenomenal World, or Cosmos.) What conception are we to form of “the orderly series of sensible phenomena” we call the Cosmos? Is it subjective or objective?—*real* (i. e., a subsistence in nature) or *ideal* (i. e., a representation in thought)?—or, is it partly *ideal* and partly *real*? Are we to regard the totality of the phenomena called Nature as purely phenomena of the Ego, or of the Non-Ego, or the joint product of the Ego and the Non-Ego?

Here we are dealing solely with Phenomena, without any reference to the question whether we have any cognition of Real Being underlying phenomena. The Ontological question is postponed. Cosmology, simply, is a science of the relative and phenomenal; Rational Cosmology is the philosophy of the *Real* in cosmology.

Classification of Schools of Philosophy in view of this Problem.

To deal with the above problem aright, we must subdivide it into the following questions:

1ST QUES. *As to the fundamental difference between external and internal phenomena.* Is the object of sense-perception (material phenomena, so called,) a quality, mode, or phenomenon of an external Non-Ego (either directly known or inferred); or is it a quality, mode, or phenomenon of the Ego or Mind *itself*, or of something *in* the Mind, which *internal* or *subjective* object we may, on either alternative, call an Idea? Briefly, has the Cosmos an *actual* existence external to the conscious Mind, or only an *ideal* existence within the mind?

If we take the first ground, we are COSMOTHETIC REALISTS; if the second, we are COSMOTHETIC IDEALISTS. These are the most fundamental divisions.

(I.) COSMOTHETIC REALISM.

2D QUES. *As to whether our knowledge of the external object is mediate or immediate.* The phenomenal reality of the external object being admitted, is our knowledge of that external object direct, immediate, presentative, intuitive, or is it indirect, mediate, representative, and inferential? Have we, or have we not, an intuitive knowledge of any qualities or phenomena external to the Mind?

If we say that our knowledge of the external actuality is immediate, presentative, intuitive, we are NATURAL REALISTS; if we say that it is mediate, representative, or inferential, we are HYPOTHETICAL OR CONSTRUCTIVE REALISTS.

(1) NATURAL REALISM.

3D QUES. *As to whether our knowledge is total and absolute, or partial and relative.* Assuming that we have a knowledge (some knowledge) of the external object which is intuitive, direct, or presentative, is *all* our knowledge of the external object of this character—that is, absolute and total—or is some of it partial and relative?

If we hold that all our knowledge is absolute and total, and that the objects we see, touch, and taste do veritably exist, and exist precisely as they are seen, touched, and tasted, we are **CRUDE, VULGAR REALISTS**. If we hold that some of our knowledge is absolute and complete, and some relative and partial, that is, if we regard the “secundo-primary qualities” (statico-dynamical qualities) of body as constituting the objective object of direct and immediate perception, and the so called “secondary qualities” (dynamical qualities) are in reality not qualities of body at all, but only subjective affections or sensations, which are concomitants of certain “modes of motion,” *supposed* but not perceived, we are **PHILOSOPHICAL REALISTS**.

HAMILTON: “Philosophy,” p. 266.

(2) CONSTRUCTIVE REALISM.

4TH QUES. *As to whether the content of our knowledge does or does not correspond or agree with the actually existing external object.* Assuming that our knowledge of the external object is mediate, representative, and inferential, how can we be certain that the content of our knowledge (the notion) agrees with the objective reality, or thing in itself?

If we answer that “our knowledge of the outer world depends upon a combination of external and internal perception which takes the form of reasoning from analogy,” our doctrine is one of **CRITICAL REALISM**.—UEBERWEG: “Logic,” pp. 91, 92.

If we answer that our knowledge of the outer world extends simply to the affirmation of the existence of a real object, separate from and independent of the subjective self, but that our perceptions are only *symbols* of the external reals, which have no resemblance to the reals, our doctrine is one of **TRANSFIGURED OR SYMBOLICAL REALISM**.

SPENCER: “Principles of Psychology,” vol. ii, ch. xix.

(II.) COSMOTHETIC IDEALISM.

5TH QUES. *As to whether the ideal object is or is not a mere mode of the knowing mind.* The real existence of an external world being denied, and its purely *ideal* or notional character affirmed, the question arises, whether the idea or notion is a mode or phenomenon of the Ego or Subject, or whether it is infused into or presented to the mind by supernatural agency.

If we regard the *idea* as a modification of the mind itself, we are **EGOISTIC IDEALISTS**.

If we regard the *idea* as infused into or presented to the mind by supernatural agency, we are NON-EGOISTIC IDEALISTS.

If we say that subject and object, thought and existence, internal and external phenomena, are identical, we are ABSOLUTE IDEALISTS.

III. THE ONTOLOGICAL PROBLEM.

(Has respect to the *extent* of our knowledge.) Is our knowledge limited solely to phenomena, or can the human mind transcend phenomena, and apprehend permanent, changeless, essential or absolute Reality? Is there any substratum of real, continuous Being underlying phenomena, or is the universe of material and mental phenomena a mere fleeting appearance—"a play of phantasms in a void"? What is "the ultimate of all ultimates," the last and highest ground of all existence?

Classification of Schools of Philosophy in view of this Problem.

(I.) ONTOLOGICAL NIHILISTS.

If we assert that our knowledge is limited solely to phenomena, and that we have no cognition, direct or indirect, of ultimate Reality, we are ABSOLUTE NIHILISTS.

If we assert that all real knowledge is confined to phenomenal existence, but that we have "a nascent consciousness of unconditioned being," which is unknowable, we are QUALIFIED NIHILISTS.

SPENCER: "First Principles," pp. 93, 97.

(II.) ONTOLOGICAL IDEALISTS.

If we admit that we have ultimate Ideas (of God, the soul, freedom, etc.,) but assert that these are purely subjective ideas—"regulative principles" which have no objective validity, we are ONTOLOGICAL (OR TRANSCENDENTAL) IDEALISTS.

KANT: "Critique of Pure Reason," pp. 394-429.

(III.) ONTOLOGICAL REALISTS.

If we assert that we have some knowledge, direct or indirect, of ultimate Reality, and that this knowledge has objective validity, we are ONTOLOGICAL REALISTS.

Ontological Realism is subdivided, in view of the following questions:

(1) Is our knowledge of the ultimate Reality direct or indirect, intuitive or inferential?

They who regard our knowledge as direct and intuitive, are **ABSOLUTE REALISTS**.

They who regard our knowledge as indirect and inferential, are **QUALIFIED REALISTS**. They who assert that our knowledge rests solely on *faith*, are **MYSTICAL REALISTS**—(Hamilton: "Metaphysics," p. 531; "Philosophy," p. 61,)—whilst they who affirm that our knowledge is based upon "indefinite feeling," are **REASONED REALISTS**—(Lewes: "Problems of Life and Mind," pp. 162-180, vol. i.; pp. 409-451, vol. ii.)

(2) Is the ultimate Reality material or spiritual?

They who affirm that Matter is the ultimate Reality, and that mind is a phenomenon of organized neural matter, are **MATERIALISTIC MONISTS**.

They who affirm that Spirit is the ultimate Reality, and that matter is a phenomenon of force, or a product of spiritual activity, are **SPIRITUALISTIC MONISTS**.

They who affirm that mind and matter, thought and extension, idea and force, are at bottom one and the same—that is, are attributes or modes of one common ultimate substratum or Reality, are **ABSOLUTE MONISTS (ABSOLUTE IDENTITY)**.

The first conception is Atheistic, the second Theistic, the third Pantheistic.

BOOK II.

METHODOLOGY.

METHOD is literally a way, or path of transit. It is an orderly and logical transition. But there can be no continuous logical transition without a preconception. "All method supposes a principle of unity and progression." (COLERIDGE: "Works," vol. ii, p. 416.) "All method is a rational progress—a progress towards an *end*; and the method of philosophy is the procedure conducive to the end which philosophy proposes," viz., the discovery of causes, efficient, formal, and final; and the reduction of all our knowledge to unity.

HAMILTON: "Metaphysics," ch. vi, On Method.

VARIOUS METHODS PROPOSED.

I. *The Method of the Cerebral Psychologists.* (OBJECTIVE PSYCHOLOGY.)

Assuming that every mode of consciousness is a concomitant, if not a consequence, of certain molecular changes or actions of the nervous system, and that separate portions of the brain fulfill separate mental functions, the Cerebral Psychologists assert that "Psychology cannot be a true science unless it be studied objectively," that is, physiologically, in the action of the brain and nervous system.

LAYCOCK: "Mind and Brain," vol. i, pp. 4-12; CARPENTER: "Mental Physiology," ch. i; MAUDSLEY: "Physiology and Pathology of the Mind," chap. i.

Objections.

(I.) The essential conceptions on which Psychology, in general, proceeds are furnished solely by Subjective Psychology, that is, by the study of consciousness alone.

See SPENCER'S "Psychology," vol. i, p. 141; LEIFCHILD: "Higher Ministry of Nature," pp. 40, 46; "METH. QUARTERLY REVIEW," October, 1867, p. 626.

(II.) Mental Physiologists have no direct evidence that nervous excitations and molecular changes are the *causes* of feeling and thought.

See SPENCER'S "Physiology," vol. i, p. 99; "NATURE," vol. vii, p. 298; DE BOISMONT "On Hallucination," etc., Pref. vi, vii.

(III.) Molecular motions and groupings, supposing them to be known, are not adequate to the explanation of mental phenomena. "In reality, they explain nothing." — TYNDALL: "Frag. of Science," p. 119.

See WALLACE "On Natural Selection," pp. 360-365; FEUCHTERSLEBEN: "Medical Psychology," pp. 14-16.

(IV.) Mental Physiologists have not made the least approach toward the localization of the *mental* functions of the brain.

See "NATURE," vol. viii, p. 447; vol. x, pp. 45, 245.

(V.) The examination of the surface of the cranium furnishes no information as to the configuration of the brain.

DALTON: "Hum. Phys.," pp. 427-9; HAMILTON: "Metaph.," App. ii.

II. *The method of the Associational Psychologists.*

Regarding the human mind as "nothing but a series of feelings," (sensations which we suppose to be caused by external objects, and internal feelings,) the Associational Psychologists affirm that our notions, conceptions, ideas, judgments, and even the so-called faculties of the mind, are groups of sensations or feelings which, by frequent repetition, have become more or less "inseparably associated." The "Law of Inseparable Association" is the principal instrument employed by this method for unlocking the deepest mysteries of mental science. This law is made to take the place of every other law and condition of mental activity, and to exclude every other power or capacity. It is even regarded as adequate to explain the origin of all necessary and universal beliefs.

See J. S. MILL: "Exam. of Hamilton's Phil." vol. i, ch. xii and xiv.

Objections.

(I.) The theory that the human mind is only "a series of feelings" or "*present* sensations" is incompetent to explain memory and expectation. (See MASSON: "Recent Brit. Phil.," p. 274.) Mr. Mill admits the force of this objection; he is therefore under the necessity of supplementing his definition of mind by adding that it is a series of feelings "which is aware of itself

as *past* and *future*." This statement, however, is admitted by Mr. Mill to be "paradoxical."

See "Examination of Sir William Hamilton's Philosophy," vol. i, pp. 260-2.

(II.) If the human mind is only "a series of feelings" (which are purely subjective), then we have no direct evidence of the independent existence of other sentient beings besides self.

See MASSON: "Recent British Philosophy," pp. 285-290; JACKSON: "Philosophy of Natural Theology," ch. iii, note B.

(III.) On the hypothesis that mind is only a bundle of associated sensations, which are necessarily subjective, we can have no *perception* of an external world.

See MARTINEAU'S "Essays," vol. i, p. 86.

III. *The Metaphysical (à priori) Constructive Method.*

The Metaphysical or Constructive Method commences with abstract principles—rational conceptions of being *in se*—and endeavors to deduce *à priori* the essential characteristics of all existence, and to explain all phenomena without the aid of experience and observation. "The perfect method," says Spinoza, "is that which teaches us to direct the mind under the law of the idea of the absolute, or of perfect Being."—"De Emend. Intell.," ii, p. 287.

For criticism of this method, see PORTER: "Human Intellect," pp. 59, 60; SAISSSET: "Modern Pantheism," vol. i, pp. 144-147; MORELL: "Modern Philosophy," pp. 645-9.

IV. *Inductive or Analytico-Synthetic Method.* (INTROSPECTIVE-PSYCHOLOGY.)

INDUCTION is the process or method (1) of observing, scrutinizing, and classifying individual facts, as preparatory to illation; (2) of Synthetic Illation, or inference by which we attain to *General Principles or Laws*; and Analytic Illation, by which we attain to *Ultimate Principles or Essential Elements*.

Note.—The former (General Laws) are called express or formal principles; the latter (Ultimate Principles) are operative, real, and constitutive principles.

"The method of Induction admits, *mutatis mutandis*, of application to the study of the Human Mind, as well as to the material universe." (McCOSH.) "The method of Psychology must agree with the method of the science of external nature." (BENEKE.) "We must borrow the experimental method of Bacon." (COURSIN.)

See MURPHY: "Scientific Basis of Faith," p. 24.

INDUCTIVE OR ANALYTICO-SYNTHETIC METHOD IN PHILOSOPHY.

Philosophy is the effort of human thought to attain to the clear and distinct knowledge of First Principles—the ultimate foundations of all knowledge and all existence. It is the search after Absolute Truth and Ultimate Reality.

The facts of Consciousness are the material and starting-point of Philosophy, and Philosophy is the scientific evolution of the facts of which Consciousness is the *revelation* and the guarantee. (HAMILTON: "Metaph.," p. 194.) It is here (in consciousness) that observation seizes them, and reflection analyzes and classifies them, before committing them to illation, which forces them to reveal the logical consequence and necessary principles which they contain.

HAMILTON: "Metaphysics," p. 185-188.

The grand task of Philosophy, therefore, is to enumerate all the *complex phenomena* of consciousness, and ascertain their actual characteristics; analyze these complex phenomena, and determine their *primitive* characteristic; trace their *origin*; designate the capacities and powers of the mind concerned in the phenomena; study the *relations* of the phenomena, in order to learn the *laws* of the mind; with the design of finally discovering what are the ultimate Realities—necessary principles and absolute constitutive *essentia* which underlie and determine phenomena.

FUNDAMENTAL PRINCIPLES OF THE INDUCTIVE METHOD.

I. SUBSTANCES (*Subsistentia*) are, and can only be known, through their *essential* attributes.

Note.—*Attribute* is modified essence. "Take away necessary attributes, and you take away the essence of substance; you take away substance itself."—SAISSET.

(A.) All substances are as their essential attributes. ($A=A$. Law of Identity.)

(B.) All substances whose essential attributes are fundamentally *unlike*, are to be regarded as totally distinct (in essence).

(C.) Attributes which are absolutely contrary, incompatible, and incommensurable, cannot be supposed to cohere in the same common substance. ($A-A=0$. Law of Non-contradiction.)

(D.) A plurality of substances is not to be assumed if the phenomena can be explained by *one*.

II. CAUSES are known, and can only be known, through their action or effectuation.

Note.—*Act* is related or conditioned essence.

(A.) Effects are *analogous* to causes. (Analogia = “similarity of ratios or relations.” Analogy does not mean similarity of two things, but similarity of two relations.) If the effect is mechanical, the cause must be mechanical; if vital, the cause must be vital; if mental, the cause must be mental.

(B.) The effect cannot contain anything which does not exist potentially in the cause. No effect can transcend its cause.

(C.) The continuance of any true effect is dependent on the continued action of its cause or causes.

III. IDEALS (archetypes) are revealed, and can only be revealed, by the consecutive *evolution* of a predetermined Type or Plan.

Note.—*Ideas* are metaphysical unities which inhere in the reason. Ideas become *ideals* when they present themselves to the free-will as *models* according to which action is shaped.

IV. REASON (intentions, purposes) are manifested, and can only be manifested, by and through Adaptations and Means.

ORDER (GRADATION) OF THE INDUCTIVE METHOD.

1ST STEP. Make a complete enumeration of the *complex* phenomena of the mind, and ascertain their *actual* characteristics.

2D. Analyze the complex phenomena and reduce them to their simple, original principles, or elements, and ascertain their *primitive* characteristics.

3D. Determine the *Origin* of the primary principles of cognition (*principia cognoscendi*).

4TH. Designate the powers or *faculties* of the mind indicated by the preceding classification.

5TH. Ascertain the *Relations* (1) of the complex phenomena of the mind, (2) of the elements, or principles of cognition among themselves.

6TH. Formulate the *Laws* which govern the mind in simple apprehension, conception, and inference; also in feeling, memory; and voluntary determination.

7TH. Deduce the *necessary inferences* from the facts and laws of mind—the necessary inference in regard to *Ultimate First Principles*, (*principia essendi*) or *Absolute Reality*.

LAWS OF THE INDUCTIVE METHOD.

I. Laws of Enumeration.

(1) *Law of Integrity*. “Omit nothing.” (COUSIN: “Hist. of Philos.,” vol. ii, p. 139.) “The whole facts of consciousness

must be taken without reserve or hesitation, whether given as constitutive or regulative data." (HAMILTON: "Metaphysics," p. 186.)

(2) *Law of Parsimony.* "Suppose nothing." (COUSIN: "Elem. of Psychol.," p. 398.) Assume nothing as a fact of consciousness which is not directly and immediately given.

(3) *Law of Simplicity.* "Pervert nothing." (COUSIN: "Elem. of Psychol.," p. 402.) "Exhibit each fact in its simplicity or purity, neither distorted nor mutilated." (HAMILTON: "Philosophy," p. 30.)

II. Law of Analysis.

No phenomena or fact of consciousness is to be assumed as elementary which can be resolved into simpler elements, or principles. A principle, or element of cognition must be incapable of further reduction; it must be indecomposable and ultimate.

III. Law of Designation.

Phenomena in their fundamental characteristics alike are to be attributed to the same faculty; phenomena fundamentally different must be attributed to distinct faculties.

IV. Law of Co-ordination.

Percepts, notions, and concepts that uniformly *resemble* or *succeed* each other are to be regarded as psychologically related; those which necessarily *imply* each other, as logically correlated.

V. Law of Ontological Inference. (Deductive or Analytic Inference.)

Logical inferences as to ultimate Being, or Absolute Reality are to be recognized as legitimate only as *necessary* deductions from the immediate data of consciousness, and every position rejected as illegitimate which is contradictory of these. (HAMILTON: "Metaph.," pp. 192-6; also p. 88 and 108.)

TERMINOLOGY.

1. Terminology as related to Method.

Every step in the progress of philosophic method is marked by the formation or appropriation of Technical Terms. And as our knowledge becomes more exact we require a language which shall be exact—which shall exclude alike vagueness and fancy, imperfection and superfluity—in which each term shall convey a meaning that is steadily *fixed* and rigorously *definite*. Philo-

sophic language becomes thus precise and definite through the use of Technical Terms.

2. Importance of exact Terminology.

Since Terminology, almost itself a science, acquires importance with the growth of all liberal and severe inquiry, and since a slight difference in the use of language will invariably produce confusion and misapprehension, we must aim at a precise and unequivocal terminology. "Nine-tenths of the confusion and controversy that have existed in this department are owing.... to the employment of the same term in various shades of meaning, and with reference to various phenomena of consciousness." (MANSEL.) "*There can be no sound philosophy without clearly defined terms.*" (SPENCER.)

3. Explication of the principal terms employed in Philosophy.

Subject and Object. Subject, denotes the knowing mind or Ego. Object, denotes that about which the knowing mind is conversant, the Non-Ego.

Subjective and Objective. Subjective, denotes that which inheres in, belongs to, or proceeds from the thinking subject; Objective, denotes that which belongs to, or proceeds from the object known, and not from the subject knowing.

Subjective-object and Objective-object. The object of cognition may be a mode or phenomena of the Ego—a Subjective-object; or a phenomenon of the extra-organic Non-Ego—an Objective-object.

Real and Ideal. The Real is that which exists external to, or beyond the phenomena of the mind, either as a phenomenon, a relation, or a substance, in opposition to a representation in thought, or a pure rational apperception; the Ideal, in general, is that which exists within the mind—a *notion*, a *concept*, or an *idea*.

Phenomenon and Relation. Phenomenon is the Greek word for *that which appears*—that which presents itself to the Sense, external or internal. "Phenomenon" and "appearance" are not, however, strictly synonymous; a Phenomenon is a change—"a successive existence and non-existence of the determinations of a substance which is permanent." (KANT.) Relation is a connection (contingent or necessary), in nature or in thought, between two objects; (relations of co-existence, resemblance and

succession are *contingent*, relations of causality, inherence, reciprocity, etc., are *necessary*.)

The *Phenomenal* (existence) and the *Real* (being). The Phenomenal is the changeful, the fleeting; the Real is the permanent, constant, abiding. "The Real (ontological) is that which exists absolutely under all changes of mode, form, or appearance." (SPENCER.)

Existence and Being. Existence (*ex-sisto*—to set, to place, to cause to stand) that which has relative permanence, derived and dependent being. Being, that which is absolutely permanent, changeless, eternal. Thus we say "the Being of God," "the existence of man." "Being creates existence." (GROBERTL.)

Essence and Substance. The Essence (*Essentia*) is the sum-total of those fundamental and changeless attributes on which the subsistence, worth, and meaning of the object depends (*Essentialia constitutiva*). The Substance or Substratum is the abstract ultimate reality in which the fundamental attributes inhere. (*Ens per se subsistens*.)

Attribute and Quality. An attribute is an essential and inherent mode of existence which a substance cannot lose without ceasing to be what it is; a Quality is an accidental and variable mode of existence which substances have at one time and not at another, or which they have at all times, but may lose without ceasing to be.

Sensibility and Sensation. Sensibility is the simple, primitive, original capacity of *feeling* in general—an essential attribute of spirit as contradistinguished from matter. Sensation is purely an affection or modification of the sensitive soul, occasioned by some "mode of motion" in the physical organism. "The unconscious translation by the soul of vibratory motion into feeling." Sensation is purely *subjective*, it has no object.

Perceptivity (power), *Perception* (act), *Percept* (product). Perceptivity is the simple original power of the soul by which it becomes *aware* of the existence of something external or *objective* to self, in general. Perception (intuitive) is the specific act of the percipient soul by which it refers sensation to an object. It is the re-action of the soul upon sensation, which gives "a glare," a "mere appearance" (*schein*), but not a perfect cognition. (UEBERWEG.) A Percept is a single element of knowledge obtained through a single organ of sense, as red, hard, smooth, etc.

Simple Apprehension and *Notion*. Apprehension (*apprehendo*—to lay hold on) is the spontaneous synthesis of several percepts, ideas, and relations in a notion which corresponds to an individual object or existence. A Notion (*notio*—*nosco*—*notus*, to know) is the immediate and irrespective knowledge we have of a particular or individual object. (First Notion.) The clear and distinct knowledge of the object (attained by specification and individualization) constitutes *consciousness*.

Note.—NOTION is a generic term of which *First Notion*, *Representative Notion*, and *Second Notion* are species. (*Vorstellung* is used by the Germans in the same general sense.)

Conception (act), and *Concept* (result). Conception means to grasp or take up in bundles—to reduce our knowledge to the unity of thought; the act by which we form general notions (Second Notions). Concept is the general notion formed by abstraction, comparison and generalization. Concept (*Begriff*) is the notion of an object, not as it exists in itself, but as it is thought by the mind.

Apperception (Rational Intuition) and *Idea*. Apperception is the act of the reason by which it spontaneously and immediately apprehends ultimate realities which lie back of, produce, and condition all phenomena—the act of intuitively apperceiving the *Supersensible*, *Metaphenomenal*, and *Supernatural*. Ideas are rational, *à priori*, universal, and necessary principles or elements of cognition, which are not derived from sense, and cannot be pictured or imaged in the sensuous imagination; as the idea of Substance, Power, Cause, Purpose, the Infinite, the Absolute, and the Perfect. “Ideas are the immaterial essential forms of the intelligible world, in contrast with the sensible forms of the visible world.”

Incorrect use of Idea.—“The French have an excellent *idea* of cooking in general, but their most accomplished *maitres de cuisine* have no more *idea* of dressing a turtle, than the Parisian gourmands have any real *idea* of the true taste and color of the fat.”

BOOK III.

APPLICATION OF METHOD.

DIVISION I.

PSYCHOLOGY.

(GENERAL CLASSIFICATION.)

I. PHENOMENAL PSYCHOLOGY.

- (1) COGNITION. (Intuition, Representation, Thought.)
- (2) FEELING. (Sensation, Emotion.)
- (3) VOLITION. (Spontaneity, and Choice.)

II. DYNAMICAL PSYCHOLOGY.

- (1) INTELLECT.
 - (2) SENSIBILITY.
 - (3) WILL.
-

I. PHENOMENAL PSYCHOLOGY. *General Classification of the Phenomena of the Mind.*

A scientific method will commence by seeking to form a *general* notion of the character and properties of the subject for investigation, and striving to obtain a comprehensive view of the general divisions or classes of phenomena to be studied.

In the present instance the subject for investigation and study is the human Mind.

The most fundamental conception of Mind (or Spirit) is that it is an *Individualized Center of Power which has persistence or permanence*, and which is essentially *sensient, percipient, and spontaneous*. It is a *self-manifesting Power* (to itself, as well as to other minds), a *self-moving, self-determining Power*, and a *self-directive Power*, "bearing its own light and seeing its own

way." The essence of the soul consists in its natural *activity*, and this activity consists in the production of ideas."—SULZER, (quoted by HAMILTON: "Metaphysics," p. 595. See also p. 415.)

The *general* division or classification of the phenomena of the mind, now universally recognized, is *Cognition*, *Feeling*, and *Volition*.

(1.) *Cognition* (Knowledge) is the general name which we apply to all those mental states in which we become aware (or conscious) of some affection or activity of the mind itself, or some quality or relation of a real existence external to the mind. "The act of knowing is that activity of the mind by means of which it consciously reproduces in itself what actually exists."—UEBERWEG: "Logic," p. 1.

"To know is more than to feel, more than to perceive, more than to remember. No doubt words are much abused. We speak of a dog *knowing* his master, of an infant *knowing* its mother. In such expressions, to know means to *recognize*, ["means no more than that a present sensuous impression is associated with a past sensuous impression."—"Science of Lang.," 2d Series, p. 592.] But to know is more than to recognize. We know a thing when we are able to bring it, or a part of it, under more general ideas. We then say, not that we have a *perception*, but a *conception*."—MULLER: "Science of Language," 1st Series, p. 378.

MORELL: "Elements of Psychology," p. 141. HELMHOLTZ: "Popular Lectures on Science," pp. 308, 309.

(2.) *Feeling* is the general name for those modes or states of the psychical or spiritual nature of man, always more or less pleasurable or painful, which are the concomitants of all the energies of life—physical, intellectual, moral, and spiritual life. If these "energies of life" are unimpeded, we experience *pleasurable* feelings; if they are repressed or overstrained, we experience *painful* feelings.

HAMILTON: "Metaphysics," pp. 561–563.

Feelings are not cognitions. Some feelings precede, and are the conditions of cognition (e. g., the appetencies and the sensations), and some are the consequences of cognition (e. g., the emotions and sentiments). But sensations may exist without involving any cognition.

SPENCER: "Psychology," vol. ii, pp. 372–373. MARTINEAU: "Essays," 2d Series, pp. 264–265. LAYCOCK: "Mind and Brain," vol. i, p. 142.

Again, instances are found of men who, with distinct cognition, seem to be destitute of all emotion, as well as cases where sensation was absent, and yet consciousness existed.

HAMILTON: "Metaphysics," pp. 224–227. ABERCROMBIE: "Intell. Powers," pp. 124–126. BRODIE: "Psycho. Inquiries," vol. i, p. 181.

(3.) *Volition* is a spontaneous act of the soul, by which it chooses from among several objects or motives, determines itself to a fixed purpose in view of the objects or motives, and resolves to use and does use means to realize or actualize that purpose. The internal act of choosing, resolving, willing, is a *volitional* act; the consequent external movement of the bodily organs is a *voluntary* act.

Volition is not feeling—is not desire. Desire, be it ever so intense, never becomes volition but by a distinct movement known to consciousness, and no action can follow until volition arises. Desire is a feeling; volition is an act. The object of desire is something which already exists. The object of volition is the voluntary act which does not yet exist, but which it creates or causes. A man cannot create or cause his desires, but he can create or cause his acts. A man is not responsible for his desires, but he is responsible for his acts.

WHEDON "On the Will," pp. 16, 17. LOCKE: "Essay on the Human Understanding," b. ii, ch. 21. REID: "Active Powers," Essay ii, ch. 1. STEWART: "Act. and Moral Powers," Append., p. 471.

II. DYNAMICAL PSYCHOLOGY. *Classification of mental Powers involved in the preceding phenomena.*

"All the faculties of the soul can be reduced to the following three, which cannot be any farther deduced from a common cause: (1) The faculty of Cognition; (2) The faculty of Pleasure and Pain; and (3) The Conative faculty."—KANT: "Critique of the Understanding," Introd.

"There are in all men three *general* Faculties which are always mingled together, and are rarely exercised except simultaneously, but which analysis *divides* in order to study them better, without misconceiving their reciprocal play, their intimate connection, and indivisible unity—viz., *Intellect, Sensibility, and Will.*"—COUSIN.

"The division of the phenomena of the mind into three great classes of the *Cognitive Faculties*, the *Feelings, or capacities of pleasure and pain*, and the *Exertive, or Conative Powers*, I do not propose as original. It was first promulgated by Kant, and the felicity of the distribution is so apparent, that it has now become universally adopted in Germany by the philosophers of every school."—HAMILTON: "Metaph.," p. 129.

(1) The *Intellect* is the general name for the totality of powers or faculties by which the soul is able to *know* its own affections, states and activities, and also to *know* objects external to the mind, whether material or spiritual, together with their nature and relations.

(2) The *Sensibility* is the general capacity of *feeling*—the susceptibility of being *affected* or excited by impressions upon, or changes in the organism; of being *urged* by connate or instinctive desires; and of being *inspired* and stirred by conceptions, thoughts and ideas.

(3) *The Will* is the grand power of spontaneously determining one's self to the performance of specific acts either of mind or of body. "The Will is the *power* of the soul by which it is the conscious author of an intentional act."—WHEDON: "On the Will," p. 15.

Psychology is thus divided into three parts, viz.:

PART I. Intellectual Philosophy.

PART II. Philosophy of the Sensibility.

PART III. Philosophy of the Will.

DIVISION I.

PSYCHOLOGY.

PART I.

INTELLECTUAL PHILOSOPHY.

(GENERAL.)

CONSCIOUSNESS.

Metaphysics, being "the philosophy of the facts of consciousness," should commence with a clear conception of the *nature*, *development*, and *authority* of consciousness.

"Philosophy itself is but the articulate development of consciousness."—MANSEL: "Ency. Brit.," vol. xiv, p. 553.

COUSIN: "Elem. of Psycho.," p. 413.

"Philosophy is the scientific evolution of the facts of which consciousness is the revelation."—HAMILTON: "Philos.," p. 222.

CONSCIOUSNESS.—*Etymology of the term.* CONSCIENTIA (CON—with, SCIENTIA—knowledge) a joint knowledge, a knowing along with others. "The members of a conspiracy were said to be *con-scire*, and *consci-us* is even used for conspirator."—HAMILTON: "Metaph.," p. 135. Consciousness is joint knowledge—associated knowledge—synthetic knowledge—the knowledge of one thing or object in connection or relation with another. Consciousness is the knowledge of the relation between two objects or two terms.

(HAMILTON: "Metaph.," p. 133.)

Consciousness is defined by Hamilton as "*the recognition by the mind or Ego of its own acts and affections.*" ("Metaph.," p. 133.) In this, he says, "all philosophers are agreed."

Viewed in connection with Sir Wm. Hamilton's entire doctrine in regard to Consciousness, this definition is open to criticism, and must be pronounced inadequate. All philosophers have not, by any means, meant the same thing by the term consciousness. Most men (including even Reid and Stewart)

have meant Self-consciousness. They have held that we can be conscious *only of some state of our own mind*. The mind's "own acts and affections" are within the mind itself and not external to it; accordingly we have, in their opinion, no *direct* evidence of consciousness for the existence of the external world. And in this doctrine *most* philosophers "are agreed."

This is not, however, the doctrine to which Hamilton assents. Nothing can be further from his mind. Though he has defined consciousness as the recognition of the mind's own acts and affections, he nevertheless teaches that we are conscious of things outside of, external to, the mind. For example, he says: "I am conscious of the inkstand." ("Metaph.," p. 158.) "We are *conscious* of the external world immediately and in itself. This is the doctrine of natural Realism."—"Philosophy," p. 394; see also p. 178.

On World-Consciousness see MANSEL: "Encyc. Brit.," vol. xiv, p. 513. SPENCER: "Psychol.," vol. ii, p. 437. MCCOSH: "Defence of Fundamental Truth," p. 157. DR. CARPENTER: "Ment. Physiol.," p. 177. HAMILTON: "Philosophy," p. 177.

Hamilton must either enlarge his definition of consciousness or abandon the doctrine of Natural Realism, which teaches that "we are conscious of the external world." The definition which is given by Mansel (the editor of Hamilton's "Metaphysics") is more comprehensive and satisfactory. "Consciousness (Presentative or Intuitive) is the knowledge of an individual object, be it a *thing*, or *state*, or *act of mind*, immediately presented before me *here and now*—that is, with a definite position in *time* or *space*, or both."—Art. "Metaphysics," Encyc. Brit., vol. xiv, p. 556.

I.

CONSCIOUSNESS IS KNOWLEDGE. To be conscious is to *perceive*, (*percipio*: to take up wholly—to seize wholly); it is to *apprehend*, (*apprehendo*: to grasp—to take hold of); it is to *know*—the word explains itself (*scientia-cum*). Not only have I a sensation, but I *know* that I have it. I can differentiate it, define it, and refer it to its source; not only do I will or determine, but I *know* that I will, I know why I thus decide, and I can foresee some of the consequences of my determination. In general, then, *Consciousness is Knowledge*.

"Consciousness and Knowledge are not opposed as really different....they severally infer each other, and are really *identical*."—HAMILTON: "Metaph.," p. 134. "We *know*; and we

know that we know:—these propositions, logically distinct, are really *identical*; each implies the other.”—HAMILTON: “Philosophy,” p. 171.

NOTE A.—*Sensation (feeling) is not consciousness, is not in any sense knowledge.* J. S. Mill asserts that “in the language of philosophy, feelings and states of consciousness are synonymous, everything is a feeling of which the mind is conscious.”—“Logic,” ch. iii, § 3.

To the doctrine of Mr. Mills, we object—

(1) A Sensation is simply a sensation and nothing more. It is not perception, not memory, not imagination, not judgment, not reasoning.

MCCOSH: “Defence of Fund. Truth,” pp. 84, 85.

(2) Sensation is purely subjective; “sensation as such has no object.”—MARTINEAU: “Essays,” 2d series, pp. 236, 238.

UEBERWEG: “Logic,” pp. 77, 78.

(3) Sensation may exist without any cognition.

SPENCER: “Psycho.,” vol. ii, pp. 372-3, 393. CARPENTER: “Human Physio.,” p. 554; “Mental Physio.,” p. 183; “Comp. Physio.,” pp. 637-640. LAYCOCK: “Mind and Brain,” vol. i, p. 143. FEUCHTERSLEBEN: “Med. Psycho.,” pp. 84, 298. MURPHY: “Habit and Intell.,” vol. ii, p. 13. MARTINEAU: “Essays,” 2d series, pp. 264, 265.

(4) There may be consciousness even when there is complete insensibility to outward impressions.

SIR B. BRODIE: “Psychological Inquiries,” vol. i, p. 131. ABERCROMBIE: “Intellectual Powers,” pp. 124, 125.

II.

CONSCIOUSNESS IS A SPECIAL KIND OF KNOWLEDGE.

Knowledge is a concept of much wider extent than consciousness. Knowledge is either *potential* or *actual*. “I know a science, or language, not merely while I make a temporary use of it, but inasmuch as I can apply it when, and how I will. Thus the infinitely greater part of our spiritual treasures lies always beyond the sphere of consciousness, hid in the obscure recesses of the mind.” (HAMILTON: “Meta.,” p. 236.) This is *potential* knowledge. When that knowledge of a science, or a language, is really before the eye of the mind, and used by the mind, it is *actual* knowledge. Furthermore, actual knowledge is either *mediate* or *immediate*. When we cognize a thing “in or through something numerically different from itself,” that is through a vicarious image or symbol, that knowledge is *mediate* (symbolical). When we cognize a thing “in itself,” that is, when the thing is, as it were, viewed by the mind face to face, we have *immediate* knowledge. *Consciousness is actual and immediate knowledge of what is here and now present to the mind.*

"Consciousness and immediate knowledge are terms universally convertible."—HAMILTON: "Philosophy," p. 177.

"Consciousness is a knowledge solely of what is now and here present to the mind."—HAMILTON: "Philos.," p. 250.

MANSEL: Art. "Metaphysics," Ency. Brit., vol. xiv, p. 556.

"An immediate knowledge of the *past* is impossible."—HAMILTON: "Philos.," p. 251; "Metaphysics," p. 152.

"We are not conscious of the *distant*."—HAMILTON: "Metaphysics," p. 374.

Note.—Hamilton commits a grave mistake in regarding mind as strictly co-extensive with consciousness, and asserting "that we have no knowledge of which we are not conscious." This is in direct opposition to all that is said in ch. xviii: "*Is the mind ever unconsciously modified?*" and especially at p. 236 and p. 253.

III.

CONFUSED OR OBSURE PERCEPTION IS NOT CONSCIOUSNESS. Every moment the light is reflected from innumerable objects; sounds and odors of innumerable kinds affect our senses; and different bodies are in contact with our bodily organism; but we pay no immediate attention to them; and yet they are perceived by the mind. These are what Leibnitz calls "*obscure perceptions*;" they do not come clearly and distinctly into the field of consciousness. In order to a clear and distinct knowledge there must be some unfolding of the Will, that is, a certain "concentration of analytic attention." Therefore, *Consciousness is clear and distinct knowledge (attained through specification and individualization) of what is here and now present to the mind.*

"Our knowledge proceeds from the confused to the distinct—from the vague to the determinate—so, in the mouths of children, language at first expresses neither the precisely general, nor the determinately individual, but the vague and the confused; and out of this the universal is elaborated by *generification*, the particular and the singular by *specification* and *individualization*."—HAMILTON: "Metaph.," pp. 497–501.

"Consciousness is *distinct* cognition evolved out of *obscure* intuition."—MANSEL: "Prolegomena," p. 42.

"A notion is *clear* when it has sufficient strength of consciousness to enable us to distinguish its object from other objects. It is *distinct* when its individual elements are also clear, and consequently when it suffices to distinguish the elements of the object from each other."—UEBERWIG: "Logic," p. 125.

"Individual conceptions [First Notions] gradually arise out of the original blur of perception (ungeschiedenen Gesamtbilde der Wahrnehmung) when man begins to recognize himself as an individual essence, in opposition to the outside world."—UEBERWEG, "Logic," p. 111.

“Wundt draws a sharp line between *clear* and *obscure* perception, recognizing various degree of each, both in one and the same mind, and in the scale of animal existence. The circle of distinct consciousness is determined by the process called *attention*. He draws an analogy between the region of attention and the field of distinct perception in vision, and makes use of the terms ‘*field of view*’ and ‘*point of view*’ to illustrate the distinction between all the presentations at a given moment, and that part of them to which attention is directed. The entrance of a presentation into the internal ‘*field of view*’ is termed perception; its entrance into the internal ‘*point of view*,’ an *apperception*” [apprehension].—Art. “On Physiological Psychology in Germany.”—MIND, p. 36.

IV.

Consciousness is only a *small sphere* of mental modification in the center of a far wider sphere of action and passion of which we can only be cognizant through its effects. It is, so to speak, the illuminated field where everything that takes place in the obscure recesses of the mind is seen in its concrete results.

“I do not hesitate to maintain that what we are conscious of is *constructed* out of what we are not conscious of.... The sphere of our conscious modifications is only a small circle in the center of a far wider field of action and passion of which we are only conscious through its effects.”—HAMILTON: “Metaph.,” pp. 241, 242.

“The sphere of our immediate consciousness is very small, it is but the center of our sphere of knowledge which extends in every direction.”—MURPHY: “Scient. Basis of Faith,” p. 93.

“Psychology contains and reflects all, that which is known of God and that which is known of the world, under the precise and determinate angle of consciousness.”—COUSIN: “Hist. of Philosophy,” vol. i, p. 97.

“The human soul leads a two-fold existence, one clear as day and self-conscious, the other obscure and unconscious, and in its dim abyss it holds some contents which never fully emerge into the light.”—MARTENSEN: “Ethics,” p. 110.

See MORELL: “Elem. of Psycho.,” part 1, p. 74. UNSER and PROCHASKA: “On the Nervous System,” Intro. p. vii. LAYCOCK: “Mind and Brain,” vol. i, p. 174. UEBERWEG: “Logic,” p. 102.

The human mind exerts *energies*, and is the subject of *modifications* of which it is not conscious.

HAMILTON: “Metaphysics,” Lect. xvii and xviii. LAYCOCK: “Mind and Brain,” vol. i, p. 174. WINSLOW: “On the Brain and Mind,” pp. 353-4. MANSEL: Art. “Metaphysics,” Ency. Brit., vol. xiv, p. 575.

(A.) *Pre-conscious mental activities*, which exist and operate prior to consciousness, and manifest their presence and activity in the total concrete result—the *Individual Notion*.

(1) Those activities of the soul by which it translates the external organic affections (neural tremors) into internal quali-

ties—*Sensations*. "Sensation is the unconscious translation, by the soul, of vibratory motion into feeling."—HEIDENHAM. "Sensitivity is the action of the soul by which it converts mere bodily affections into sensations."—LOTZE.

Note.—Even in sensation the mind is not passive.

See HAMILTON: "Metaph.," pp. 415, 573.

(2) Those activities of the soul by which it re-acts upon the external occasion, or excitant of sensation, and forms *percepts*, and groups of percepts. "Perception is the semi-conscious translation, by the soul, of sensation into objective cognition."—HEIDENHAM. "Perception is the power of the soul to localize its sensations."—LOTZE. It is the power by which the mind refers sensations to their occasion or source.

CARPENTER: "Mental Physio.," p. 176-177.

(3) Those activities of the soul by which it combines precepts of sense with ideas of reason so as to form *Individual Notions*.

UEBERWEG: "Logic," p. 77, § 36. MCCOSH: "Defence," etc., p. 233. KANT: "Critique of Pure Reason," pp. 62, 63.

(B.) *Sub-conscious mental activities*. Those actions of the soul by which modes of thought (notions, concepts, inferences), modes of feeling, and modes of voluntary activity of which we have once been conscious, become so *associated* that when one re-appears, or is re-presented, the other will involuntary re-appear, either simultaneously or successively—*Mental Habits*.

MURPHY: "Habit and Intelligence," vol. ii, pp. 48, 55.

(1) *Habits of Thought*. When notions, conceptions and inferences have co-existed or succeeded each other in the mind, the recurrence of one of the cognitions tends to recall the consciousness of the other.

(2) *Habits of Feeling*. When a mode of thought and a mode of feeling have occurred together, or in immediate succession, the reproduction of one will recall the other.

(3) *Volitional Habits*. Actions which at first are performed by a conscious effort, tend by repetition to become habitual and semi-conscious or unconscious.

(C.) *Conservative Power of the Mind*. That power of the mind by which whole systems of knowledge (sciences and languages) are retained in the mind and reproduced in consciousness and applied at will.

HAMILTON: "Metaph.," p. 236.

(D.) *Latent Mental Modifications*. Certain systems of knowledge, or parts of systems of knowledge, which the subject is wholly unconscious of possessing, and cannot reproduce at will, but which are revealed to consciousness in certain states of extraordinary exaltation of mental power.

HAMILTON: "Metaph.," pp. 236-240. ABERCROMBIE: "Intel. Powers," pp. 119, 133.

V.

Consciousness is a *complex phenomenon*, the result of the spontaneous and simultaneous action of the primary powers of the mind—*sense, reason, and primitive judgment* (spontaneous apprehension).

"All our [primary] faculties enter, at first, into spontaneous exercise, on account of the power which is inherent in them, and not on account of our will, and they enter into exercise all together . . . , and this simultaneous action of all our faculties results in a *complex* fact—consciousness."—COUSIN: "Hist. of Philos.," vol. i, p. 323; also pp. 237, 238, 287, 233 and 337.

"Human consciousness . . . is a *compound* of several elements. Our personal consciousness, like the air we breath, comes to us as a compound."—MANSEL: Art. "Metaph.," Ency. Brit., vol. xiv, p. 560.

"Every definite state of consciousness is the many in the one—the synthetic unity which is termed apperception."—LAYCOCK: "Mind and Brain," vol. i, p. 155.

"The immediateness of knowledge (in perception) is relative, since many psychical operations are blended in with the sense-activity, although only their *collective* product appears in consciousness."—UEBERWEG: "Logic," p. 77.

VI.

Consciousness is sense illuminated by *reason*—the rational *à priori* idea informing the sense, and thus empowering the mind to form notions of individual objects.

"All light comes from the *reason*, and it is reason which perceives both itself and the sensibility which envelopes it The element of knowledge is rational in its essence; and consciousness, although composed of three integrant and inseparable elements, borrows its most immediate foundation from *reason*, without which no knowledge would be possible, and consequently no consciousness. Sensibility is the external condition of consciousness, the Will is its center, and *Reason its light*."—COUSIN: "Elem. of Psychol.," p. 417.

"In every judgment and in every thought, the grosser as well as the more refined, an exact analysis discovers two elements—one *empirical*, the other *rational*; a datum *à posteriori* and a concept *à priori*."—SAISSET: "Modern Pantheism," vol. i, p. 144. "The content of perception reached by means of organic affection must be recognized to be a coöperating factor in the process of the formation of notions . . . By it [organic affection] the *external* orderly arrangement in space and time is brought to consciousness. The thinking, led from the *signs* contained in it to the *internal* orderly arrangement, makes it signify the moments constituting the *essence* of things. . . . The system of notions is not given in a lasting way, in the general subjective reason. *It exists in the absolute reason, which comprehends all mere subjectivity, and adjusts it to objectivity*."—UEBERWEG: "Logic," p. 107.

VII.

The unity of consciousness is a Synthetic Judgment—the spontaneous synthesis, by the indivisible Ego or Will, of the percepts of sense and the ideas of reason in a primitive psychological Judgment.

"Extending the terms Apprehension [Simple Apprehension] and Judgment beyond the region of thought proper, it may be laid down as a general canon of Psychology that the *unity of consciousness is a Judgment*."—MANSEL: "Prolegomena," p. 62.

"The Original Synthetic Unity of Apperception"... "I call the transcendental unity of self-consciousness, in order to indicate the possibility of *à priori* cognition arising from it."—KANT: "Critique of Pure Reason," p. 82.

"Consciousness necessarily involves a judgment.... A consciousness is necessarily the consciousness of a determinate something; and we cannot be conscious of anything without virtually affirming its existence, that is, judging it to be. Consciousness is thus primarily a Judgment."—HAMILTON: "Metaphysics," p. 463.

"The first act of knowing is a judgment free from all reflection, an affirmation, without any mixture of negation,—an immediate intuition, the legitimate child of the natural energy of the mind."—COUSIN: "True, Beautiful, and Good," p. 70.

See "Hist. of Philos.," vol. ii, pp. 337, 343, 363.

Judgment is essentially a personal act, the act of the Indivisible Ego, or Self, or Will. "Sensible facts are necessary. We do not impute them to ourselves. Rational facts are also necessary; and reason is no less independent of the will than sensibility. Voluntary facts alone are marked in the view of consciousness with the character of personality. The will alone is the person, or the me. The me is the center of the intellectual sphere. So long as the me does not exist, the conditions of the existence of all the other phenomena might be in force, but, without relation to the me, they would not be reflected in the consciousness."—COUSIN: "Elem. of Psycho.," p. 416.

Spontaneity is essentially the action of Will, as much as reflection and deliberation. "Spontaneity is essentially free, although it is accompanied by no deliberation, and often in the quick springing forth of its inspired act, eludes its own observation and leaves scarce a trace in the depths of consciousness."—COUSIN: "Elem. of Psycho.," p. 564.

VIII.

The Psychological or Experiential Unity of Consciousness is a tri-unity—a triplicity in a psychological unity,—Sensivity or Sensible Intuition (SENSE), *à priori*, Rational Intuition (REASON) and spontaneous activity (Will).

"The triplicity of consciousness, the elements of which are distinct and irreducible, one to the other, is then resolved into a single fact, as the unity of consciousness exists only on condition of that triplicity."—COUSIN: "Elem. of Psycho.," p. 433.

IX.

The Psychological Unity of Consciousness corresponds with the Ontological Unity of the contents of Consciousness—God, the Soul, and Nature.

Psychological Elements.

Reason	=
Will	=
Sense	=

Ontological Elements.

God.
The Soul.
Nature.

"Thus, the psychological unity of consciousness in its triplicity is found, so to speak, face to face with the ontological unity in its parallel triplicity. Every fact of consciousness is psychological and ontological at once, and contains already the three great ideas which science afterwards divides or brings together, but which it cannot go beyond, viz., self, nature, and God."—COUSIN: "Elem. of Psychology," p. 434; also pp. 435-7.

1. SELF-CONSCIOUSNESS=Immediate, direct cognition of Self—the indivisible and identical Ego.

"The essence of self-consciousness is consciousness of the Ego," (p. 85.) "In mental acts, consciousness and existence are one and the same," (p. 84.)—UEBERWEG: "Logic."

"The personal Self is neither a mode of consciousness, nor the aggregate of many modes, but a *substance*, distinct from all its affections, though discerned in consciousness in conjunction with them. This one *Presented Substance* (Myself) is the basis of the other notions of substance which are thought representatively in relation to other phenomena."—MANSEL: Art. "Metaph.," Ency. Brit., vol. xvi, p. 600; "Prolegomena Logica," pp. 122, 124.

See GREEN: "Spiritual Philos.," vol. i, p. 189. PORTER: "Intell. Philos.," p. 95. HAMILTON: "Metaph.," p. 259. BENEKE: "Neue Grundlegung zur Metaphysik," p. 10. GALUPPI: in Ueberweg's "Hist. of Philos.," vol. ii, p. 486. JOUFFROY: "Nouveaux Mélanges Philos.," p. 275.

2. WORLD-CONSCIOUSNESS=Immediate, direct cognition of the external world.

"Consciousness and immediate knowledge are terms universally convertible; and if there be an immediate knowledge of things external, there is, consequently *the consciousness of an outer world*," (p. 177.) "I have frequently said that, in perception, we are *conscious* of the external object *immediately* and in itself," (p. 394.)—HAMILTON: "Philos."

See also SPENCER: "Psychology," vol. ii, p. 437. MCCOSH: "Defence," p. 157. MANSEL: "Ency. Brit.," vol. xiv, p. 613. DR. CARPENTER: "Mental Physio.," p. 177.

3. GOD-CONSCIOUSNESS=The immediate cognition of God. (Gottesbewusstsein—Intuition of God.)

"As the existence of the conditioned Ego can only be explained from the being of the unconditioned Ego, there is innate in each self-consciousness, not merely a relation to itself and the world, but a God-consciousness, and a bias to God *potentia*."—MULLER: "Christ. Doct. of Sin," vol. ii, p. 316.

MANSEL: "Limits of Religious Thought," pp. 32, 115. SAISSET: "Mod. Panth.," vol. ii, 243. COLERIDGE: "Works," vol. v, p. 16. MARTENSEN: "Dogmatics," p. 75. CHRISTLIEB: "Modern Doubt," p. 141. M'VICAR: "Sketch of Philos.," pp. 84, 85. Prof. SYLVESTER: "Nature," vol. i, p. 238. CARLYLE: "Essays," vol. i, p. 85. MULLER: "Science of Language," 2d series, p. 455.

X.

Consciousness, though natural and necessary to every human mind whose powers are naturally developed, is not exercised at the beginning of its existence, but only after certain conditions of growth, and stages of progress have been attained.

We have defined Consciousness as the direct and immediate knowledge of an individual *Object*, be it an external thing, or an act or state of the mind, as present *here* and *now* to the percipient Ego, together with a direct and immediate knowledge of the *Subject* or Ego which perceives and knows. This Consciousness has a gradual development.

"The mind, like the body, acquires its functions by insensible degrees, 'unseen, yet crescive in its faculty'; and we find ourselves in possession and exercise of nature's gifts, without being able to say how we acquired them."—MANSEL: "Ency. Brit.," vol. xiv., p. 559.

"Man is subject to a development in time, and not only his physical being, but also his mental, develops itself from an obscure nature-basis... His self-consciousness unfolds itself from the unconscious, obscure, embryonic abyss."—MARTENSEN: "Ethics," p. 110.

See PORTER: "Human Intell.," p. 100.

1. The first activities of the soul are those of SIMPLE LIFE. We do not here refer to cosmical, bioplasmic Life (the characteristics of which are assimilation, nutrition, growth, and organization) but individual Life—an *Individualized Center of Power* having certain instinctive appetencies which are essential to its preservation and development. This Power is first manifested in spontaneous motions which are unconscious and may exist even before the experience of sensations.

2. ORIGINAL INNATE SENSATION (General Feeling—Obscure Self-Feeling). The earliest sign by which the Ego becomes perceptible is in the primitive, original Sensibility (*Ursinn*) which is an essential attribute of Spirit, and may exist independent of a nervous system. It is "the dim sense of an individual Subject" (KANT). "A feeling of existence" (ULRICHT). "Self-hood (being-for-or-to-self) without reference to what is not self."—(LOTZE).

3. CENÆSTHESIS or Common Feeling. The next step in the development of the Ego is sensation through the mediation of the Ganglionic System of Nerves; e. g. hunger, thirst, etc.

4. MUSCULAR SENSATIONS. Those sensations which arise from the varying condition of the muscles when in action or at rest, impeded or unimpeded, fatigued or cramped.

5. SPECIAL SENSATIONS (touch, taste, smell, hearing, and sight) through the medium of the organs of sense, and the Cerebro-spinal Nerves; and developed (probably) in the order given above.

6. SENSE OF EFFORT and FEELING OF RESISTANCE TO LOCOMOTIVE ENERGY. The muscles obeying (though imperfectly) the spontaneous effort of the Will are resisted by an impediment external to the organism, thus giving a dim and obscure perception of *outness*, or *externality*.

7. PERCEPTION (Distinguishing Activity of the Soul). The mind re-acts upon the occasion, or excitant of sensation and localizes the object—"refers sensation to its occasion or source." The translation of subjective sensation into objectivity.

8. RATIONAL INTUITION. The apperception of permanent Realities (Substance, Cause, Purpose, Identity, etc.) which are necessary to the interpretation of sensible phenomena—the Reason illuminating and informing Sense.

9. APPREHENSION. The synthesis of percepts of sense and ideas of reason under the relations of Time, Space, Inherence, Causality, Intentionality, and Reciprocity, giving NOTIONS of individual existences, and affirming their objective reality.

10. ETHICAL FEELINGS. The sense of duty and the feeling of responsibility giving the apprehension of personal rights. The human Ego becomes perfectly conscious of itself only in relation to another Ego. When we realize that we have certain obligations, that we are set to perform certain duties, and that we have certain rights, then we are fully assured of our Personality. "The real knowledge of our own *essence* depends on our apprehension of the Ethical Idea" (UEBERWEG). "A consciousness properly human, means CONSCIENCE."—(COLERIDGE).

Through these various stages consciousness is fully developed.

XI.

Consciousness considered in its relation to the *Objects* of knowledge is of three kinds: 1st, Spontaneous and Realistic; 2d, Representational; 3d, Reflective and Symbolical.

1. *Spontaneous and Realistic Consciousness* is the direct and immediate knowledge of an individual Object (an external existence or an internal act or state of the mind) which is *here* and *now* present to the mind with a definite position in *time* or *space* or *both*.

2. *Representational Consciousness* is a direct and immediate knowledge of a vicarious image or a sign which *now* represents an individual object that was once present to the mind with a definite position in time or space or both.

3. *Reflective and Symbolical Consciousness* is the present direct and immediate knowledge of a General Notion, or Concept, that symbolizes, or typifies a class or group of possible individuals which agree with or resemble each other in essential attributes—a consciousness that "looks before and after," which has *provision* as well as *revision*.

Note.—In *Spontaneous Consciousness* there are *two* elements: (1) The Conscious Subject or Self; (2) The Object of which the subject is directly cognizant. In *Representational Consciousness* there are *three* elements: (1) The Knowing Subject or Self; (2) The subject-object (image, feeling, sign) immediately known; (3)

The external object mediately known through the image, feeling, or sign. In *Reflective Consciousness* there are *two* elements : (1) The knowing Subject or Ego ; (2) The thought-object or symbol immediately known, which may or may not represent a possible object of intuition.

These three kinds of Consciousness considered *subjectively* are characterized as follows :

SPONTANEOUS is	REPRESENTATIONAL is	REFLECTIVE is
Intuitive,	Intermediate,	Discursive,
Involuntary,	-	Voluntary,
Synthetic,	-	Analytic,
Begins with affirmation,	-	Begins with doubt,
The point of departure,	-	The point of return,
The genius of human nature,	-	The genius of the few,
Constitutes Natural Logic,	-	Constitutes Formal Logic,
Gives TRUTH.	Creates ART.	Produces SCIENCE.

XII.

Inasmuch as all our knowledge rests ultimately on certain facts of consciousness which are *primitixe, indecomposable, self-evident, necessary, and universal*, the deliverances of spontaneous consciousness must be accepted as of ABSOLUTE AUTHORITY.

“Consciousness is to the philosopher what the Bible is to the theologian. Both are professedly revelations of Divine Truth. Both exclusively supply the *constituent* principles of knowledge, and the *relative* principles of its construction. To both we must look for *elements* and *laws*.”—HAMILTON : “Philosophy,” p. 222.

“The verdict of consciousness is admitted on all hands to be a decision without appeal” (p. 161). “All the world admits that it is impossible to doubt a fact of internal consciousness” (166). “A real fact of consciousness cannot be doubted or denied” (166). —J. S. MILL : “Exam. of Hamilton’s Philos.,” vol. i.

DIVISION I.

PSYCHOLOGY.

PART I.

INTELLECTUAL PHILOSOPHY.

(SPECIAL CLASSIFICATION.)

(A.) PHENOMENOLOGY.

- | | | |
|---------------------|---|--|
| I. INTUITION, | $\left\{ \begin{array}{l} \text{PERCEPTION (INTERNAL AND EXTERNAL),} \\ \text{APPERCEPTION,} \\ \text{APPREHENSION.} \end{array} \right.$ | |
| II. REPRESENTATION, | $\left\{ \begin{array}{l} \text{REPRESENTATION} \\ \text{PROPER,} \\ \text{REPRODUCTION,} \\ \text{RECOLLECTION.} \end{array} \right.$ | $\left \begin{array}{l} \\ \\ \\ \end{array} \right. \text{RECOMBINATION.}$ |
| III. THOUGHT, | $\left\{ \begin{array}{l} \text{CONCEPTION,} \\ \text{PREDICATION,} \\ \text{IDEATION,} \\ \text{ILLATION (SYNTHETIC AND ANALYTIC),} \\ \text{RATIONAL INTEGRATION.} \end{array} \right.$ | |
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Application of Method. 1st STEP. Make a complete enumeration of the *complex* phenomena of cognition and ascertain their *actual* characteristics. This naturally divides into (1) The enumeration of the complex phenomena of cognition, (2) The ascertainment of the actual characteristics of the complex phenomena of cognition.

COMPLEX PHENOMENA OF COGNITION.

(I. INTUITIVE KNOWLEDGE.)

1. The knowledge of what is *here* and *now* presented to consciousness, that is, the individual object of immediate, spontaneous, intuitive apprehension; whether external, internal, or supernal (transcendental)—THE FIRST NOTION.

A FIRST NOTION (*notio*; *nosco*, *notus*,—to know) is the immediate, irrespective knowledge we have of a *particular individual* or *personal* object in immediate relation with the organs of sense or the pure reason, as the complement of certain qualities or attributes considered simply as belonging to itself. "A First Notion is the cognition of a thing [or object] *as it exists in itself*, and independent of any operation of thought."—HAMILTON: "Discussion," p. 139, note.

The OBJECT of intuitive, or immediate apprehension may be either *external*, *internal*, or *supernal* (transcendental)—the impersonal Non-Ego, the personal Ego, or the self-existent, unconditioned Cause of the Ego and the Non-Ego.

(1) The NOTION of the impersonal Non-Ego is the consciousness of a complexus of real qualities (extension, incompressibility, inertia) inherent in; of physical properties (resistance, weight, mobility) manifested by; and of vital, or organic affections, occasioned by some mode of motion in; a *material substance*, e. g., This Book.

(2) The NOTION of the personal Ego is the consciousness of a complexus of ideal phenomena manifested by, and mental powers inherent in, a *spiritual substance*, e. g., Myself.

(3) THE NOTION of the self-existent, unconditioned Cause of the Non-Ego and the individual Ego is a complexus of real attributes inherent in and manifested by a *spiritual substance*—God.

(II. REPRESENTATIVE KNOWLEDGE.)

2. The knowledge of what was once present to intuition but is now *represented* in consciousness by (A) a vicarious *image*, (B) a similar *feeling* or mental state or (C) an artificial *sign* or symbol—THE REPRESENTATIVE NOTION.

The immediate object of consciousness in representative cognition is an individual or particular object created by the mind's own energy (a *subject-object*) in which or by which the past or absent object is mediately presented to the mind.

3. The knowledge which was once presented to intuition but afterwards modified or decomposed and recombined by the imagination or emplastical power—THE PLASTIC NOTION.

(III. THOUGHT KNOWLEDGE.)

4. The knowledge which has been *conceived* in the mind through a process of Comparative Abstraction—the apprehension and generalization of certain *relations of resemblance* between a class of objects and their denotation by a common symbol which may *represent* a possible object of intuition or may be *predicated* of a possible object of intuition. THE SECOND NOTION OR CONCEPT.

The *object* of immediate consciousness in mediate, symbolical cognition is a product of thought (a *thought-object*) which

may (A) represent, or (B) be predicated of a possible object of intuition.

(A.) A collection of attributes united by a common symbol and representing a possible object of intuition in some of its relations—THE COMPLEX CONCEPT, e. g., Vertebrate.

(B.) A single quality act or relation prescinded, generalized, and named, which may be predicated of a possible object of intuition—THE SIMPLE CONCEPT, e. g., Color, Motion, Ruler.

CONCEPTION (*con*, together, *capio*, to seize).—the act of grasping a number of single objects under certain relations of resemblance (quantity, quality, form, and function) and binding them together in a unity of thought—comprehending the many in one.

COMPARATIVE ABSTRACTION. The points of resemblance in a number of objects are discerned by abstraction (selective attention), and constituted a concept, or thought-object by comprehension, or conception.

5. The knowledge which is developed in the mind by the apprehension of certain *relations of totality* (whole and parts), either in extent or content, between two concepts. THE PREDICATIVE JUDGMENT OR JUDGMENT PROPER.

"A Judgment is a combination of two concepts, related to one or more common objects of possible intuition."—MANSEL: "Prolegomena," p. 68. A *Proposition* is a contingent judgment expressed in words; an *Axiom* is a necessary judgment expressed in words.

"The Judgment is the consciousness of the objective validity of a subjective union of concepts.... The Judgment, in its various forms, corresponds with and is the subjective copy of the various objective relations."—UEBERWEG: "Logic," p. 187.

Note.—If, by observation and experiment, the relation between concepts is found to be uniform, we have attained to what, in science, is called a GENERAL LAW.

6. The knowledge which has been developed in the mind by a process of Immediate Abstraction—the apprehension of the absolute and necessary correlation between a concept and an idea of the reason, and its positive affirmation as a universal law of cognition and thought. THE ABSOLUTE PRINCIPLE OR LAW.

"The knowledge based upon the direct consciousness of the absolute and necessary correlation between a concept and an idea." (See ROSMINI in Ueberweg's "Hist. of Philos.," vol. ii, p. 491.)

"Man's intellectual supremacy consists in the idealization of facts."—WHEWELL: "Moral Philos.," p. 129.

7. The knowledge which is derived from the *extension* of our generalized experiences (Predicative Judgments) to other facts or

objects beyond our experience (the past, the distant, and the future)—that is “proceeding from the known to the unknown” by a mediate Judgment, warranted by and based upon an *à priori*, necessary and universal Principle. THE SYNTHETIC INFERENCE.

Hamilton calls this “inductive inference.” Ueberweg calls it “inference of superordination.” “Inference is the combination of the necessary truth with contingent knowledge.”—APELT. The EXTENSION (*extent, breadth, domain, sphere, denotation, or application*) of a concept consist of the individual things embraced under it and represented by it.

8. The knowledge which is deduced from the *intension* of our generalized experiences (Predicative Judgments)—that is, the *analysis* of the subject and predicate concepts into their constitutive and consecutive elements (fundamental and derivative Essentials), and the affirmation that the same essential characteristics which are conceived as the *content* of the concept must be predicated of all the individuals symbolized or represented by the concept. THE ANALYTIC INFERENCE.

Hamilton calls this “deductive inference” (See “Discussions,” pp. 160, 161); also “analytic illation” (*ibid.*). “Aristotle regards the deductive syllogism as the *analysis* of a whole into its parts.” (*Ibid.*) Ueberweg calls it “inference by the analysis of concepts.” (“Logic,” p. 334.) He rests the validity of the deductive inference (inference based on the analysis of concepts) on the axioms of Identity and Non-contradiction. “The attributes conceived in the *content* of the concept inhere in all the objects conceived through the concept, and the relation of inference is represented by the predicate.” (Logic: p. 231.)

The INTENSION (*intent, content, depth, connotation, or implication*) of concepts consists of the fundamentally essential, and derivatively essential attributes which are necessarily implied in the existence of the objects represented thereby, and without which they could not be what they are.

9. The knowledge which is attained by a process of *rational integration*, in which all the universal and necessary principles of reason are united in one “ultimate of all ultimates” (*principium principiorum*)—an absolute First Principle, containing, predetermining, and producing all things in their relation to a final purpose. THE SYSTEM.

Science, and more especially Philosophy (“The Science of Sciences”) is a whole of knowledge in the form of a system. “System is meant to represent in its articulation the articulation of the *totality* of its objects, natural and mental.” UEBERWEG: “Logic,” p. 540.

All systems of knowledge, however special, limited, incomplete or even erroneous, are the result of the inherent desire and

striving to contemplate all our intuitions in a unity of thought; and they approach to perfection just in proportion as they attain to the unity of one absolute First Principle.

ACTUAL CHARACTERISTICS OF THE COMPLEX PHENOMENA OF COGNITION.

FIRST NOTIONS are	{ Immediate, Presentative, Intuitive, Singular, Concrete, Real.	SECOND NOTIONS, or CONCEPTS, are	{ Mediate, Representative, Symbolical, General, Abstract, Relational.
REPRESENTATIVE NOTIONS are	{ Singular, Subjective, Imageal, Pathematical, Symbolical.		
PROPOSITIONS are	{ Synthetic, <i>à posteriori</i> , Necessary, General.	AXIOMS are	{ Analytic, <i>a priori</i> , Necessary, Universal.
FIRST PRINCIPLES, or LAWS OF THOUGHT, are	{ -----Sythetic <i>à priori</i> , -----Self-evident, Conditionally ----- Unconditionally necessary ----- necessary, Universal ----- Absolute.		
INFERENCES are	{ -----Mediate, -----Synthetic ----- Analytic, -----Contingent ----- Necessary.		

IMMEDIATE. MEDIATE.

Immediate knowledge is the knowledge of a thing or object in itself. *Mediate knowledge* is the cognition of a thing or object through something numerically different from itself. In immediate knowledge there is *one* sole object; the thing immediately known and the thing existing being one and the same. In mediate knowledge there are *two* objects; the subject-object immediately known (a representative image or a symbolical notion,) and the thing actually existing and represented being different.

A Judgment is immediate when the *relation* between the two terms is intuitively apprehended.

A Judgment is mediate when the relation between the two terms is cognized through the mediation of a third term (the Middle term), with which each of the other (the Major and Minor) may be compared.

PRESENTATIVE. REPRESENTATIVE.

Inasmuch as the object immediately known is itself *present*, or directly presented to the mind, the knowledge is called *presentative*. And inasmuch as the object remotely known in mediate knowledge is held up or mirrored to the mind in a vicarious representation, the cognition is called a *representative* cognition.

There are three degrees of representative cognition. (A.) To recall the cognition of an individual object of sensible intuition,

we must be able to *image*, or body forth that object in a similar form to that in which it was first presented to intuition. This is representation proper—*Imageal Representation*. (B.) To recall the cognition of a past mental state (an affection of the sensibility), we must be able to reproduce a similar *feeling* to that which was previously present to internal perception. This is representation in the second degree—*Pathematical Representation*. (C.) When an object, or a relation which has been presented and denoted by a sensible *sign*, and the sign has, in our mind, taken the place of the actual object, so that we may employ it without mental reference to the actual object, this is representation in the third degree—*Ideographic or Phonetic Representation*.

INTUITIVE. SYMBOLICAL.

In immediate and presentative cognition the thing or object is viewed, as it were, "face to face," without any intermediation; this knowledge is called *intuitive*. It may be an exercise of either bodily or purely mental vision, an intuition of sense or of reason, but in either case it is the direct vision of an object or a truth. In mediate cognition the thing or object is known by means of second notions, or concepts. For example, I may not have seen the Ostrich. I am told it is an animal, a vertebrate, a bird (class, *Avis*), a stilt-bird (order, *Grallæ*). that it has a long neck, beak longitudinally depressed, etc., etc. I think or know the Ostrich under second notions, or concepts. This is *symbolical* knowledge.

SINGULAR. GENERAL.

A *singular* notion is the cognition of a single object. All first notions are therefore singular.

A *general* notion is the conception of a class of objects which agree in certain attributes or characteristics common to all the members of the class.

Singular notions are either *particular, individual or personal*. A *particular* thing is a single object which may be divided into parts without losing its distinctive attributes. Thus, a piece of ice is a particular thing. Its distinctive qualities are coldness, brittleness, transparency, and crystalline structure. The piece of ice may be broken into smaller parts, and each part will continue to have the same qualities as the whole. Coldness, brittleness, transparency, crystalline structure, are common to all the parts; they are therefore *general* notions or concepts. An *individual* thing is a single object which cannot be divided or separated into parts

without having its individuality destroyed. A plant or an animal is a *unity* of interdependent parts or organs, which are mutually means and ends. If these parts or organs are divided or separated, the individuality or unity of the plant or animal is destroyed. The common characteristic of plants and animals is, that they are living organic existences. Life and organization are therefore general notions, or concepts.

A *personal* being is an individual, endowed with sensation, reason, and self-determination. The personal being is characterized by a conscious unity or identity, and by power to determine his own moral character. Socrates, Tecumseh, Washington, are *single* notions. Each had individual traits, and a moral character the result of his own personal volitions. But they were all partakers of the common attributes of humanity, and are all included in one class called human beings, or men. Humanity, human beings, man, are therefore *general* notions, or concepts.

CONCRETE. ABSTRACT.

Concrete notions are cognitions of single objects (particular, individual, or personal), which have been formed in spontaneous consciousness, (*con*, together, *cresco*, to grow) The separate elements (percepts, ideas, and relations) of which the notion is formed have "grown together," that is, have been spontaneously and naturally formed in the mind. *Abstract* notions (i. e., concepts) are those cognitions which have been artificially formed in reflective consciousness by abstraction, comparison, and generalization. Thus, this individual horse, bird, fish, or reptile is a single object, and the cognition of each is a *concrete* notion. But there are some characteristics in which they all agree. They are all vitalized, sentient organisms—animated beings, and we call them animals. Animal is therefore an *abstract* notion, or concept.

ESSENTIAL. NON-ESSENTIAL.

Abstract notions are *essential* or *non-essential*. An *essential* notion is the conception of those fundamental attributes which are the common and persistent basis of a class of objects, and which they cannot lose without ceasing to be what they are, as the attributes of sensivity, perceptivity, and spontaneous power in man.

The *non-essential* notion is the cognition of certain *modes* or *accidents* of things or objects which may be present or absent

without the identity of the species being changed, as, for example, for a man "to walk," or "to be sick," or "to be a native of Paris." Of these examples, the first two are *separable* accidents, because they may be separated from the individual (the man may sit down, and he may recover from sickness); the last is an *inseparable* accident, not being separable from the individual (i. e. he who is a native of Paris can never be otherwise.)

The possibility of correct inductive reasoning depends on the good formation of concepts according to their *essential* attributes. "In proportion as the really *essential* characteristics are known, the concepts acquire scientific certainty and objective validity."—UEBERWEG: "Logie," p. 140.

SUBJECTIVE. OBJECTIVE.

In general, the *Subjective* is that which inheres in, or pertains to, or proceeds from the knowing Subject; the *Objective* is that which belongs to, or proceeds from the object known. But, inasmuch as a state or act of the mind may constitute an object of cognition, therefore, to be more precise, we must employ the term *Subjective-object* to denote a mode or act of the mind as object of cognition, and the term *Objective-object* to denote a phenomenon or a substantial existence, external to the mind, as object of cognition. The *Subjective-object* may be (1) a state or act of the mind, immediately and presentatively known (*subject-object*); (2) a creation of the mind's own energy, which is representative of an individual object existing external to the mind, (*representative-object*) (3) a product of analysis and generalization which is symbolical of a class of objects (*thought-object*).

REAL (ACTUAL). RELATIONAL (RELATIVE).

A *real* notion is the cognition of the actual or substantial existing object, as this man, this desk. A *relative* notion is the cognition of some relation which existed between a number of actual, or real objects, as subject, ruler, father, son, husband, wife.

SYNTHETICAL. ANALYTICAL.

Judgments are of two kinds, *synthetical* and *analytical*. Analytic Judgments are those which analyze or distinctly evolve in the predicate what is obscurely contained in the subject, as e. g. "All bodies are extended," a proposition in which the predicate "extended" is involved in the very conception of the subject, "bodies." An analytic judgment contains nothing in the predicate but what is involved in the right conception of the subject. It does not communicate any new element of knowledge, but

gives a clearer apprehension and larger application to what we already possess. Hence it is called an *Explicative Judgment*.

Synthetic Judgments are those by means of which the predicate *adds* to the conception of the subject a new and additional element, e. g. "all matter has weight," a proposition in which the conception "weight" is added to that of "matter," and yet is not necessarily involved in the conception of "matter." Inasmuch as the synthetic judgment is a positive extension of our knowledge, it is called an *Ampliative Judgment*.

Synthetic Judgments are either *à posteriori* or *à priori*. Synthetic Judgments *à posteriori* are all based upon experience, and are therefore *contingent* judgments, as e. g. "All swans are white." Synthetic Judgments *à priori* are based upon rational intuitions, and the necessary co-relation between these and the concepts generalized from experience. They are therefore *necessary* judgments, as e. g. "Every event must have a cause."

Analytic Judgments are all *à priori*, that is, they are formed in the mind *à priori* whether the concept analyzed be empirical or not. For the mind, having once gained this concept as a subject, has no occasion for an additional experience to determine the predicate which is already involved therein. These judgments are based upon the intuitive apprehension of the relation of identity or equality between concepts. They are therefore *necessary*.

CONTINGENT. NECESSARY.

A Notion is *contingent* when its object is conceived as existing, with the possibility of conceiving of its non-existence, as, e. g., this or that particular thing phenomenal change or succession of events. A notion is *necessary* when its object is conceived as existing, with the impossibility of conceiving of its non-existence, as, e. g., being, cause, duration, the Infinite.

A Judgment is *contingent* when the relation between two notions is conceived as existing, with the possibility of conceiving of its non-existence, as, e. g., the relation of resemblance. A Judgment is *necessary* when the relation between two notions, or between a concept and an idea of reason, is conceived as existing, with the impossibility of conceiving of its non-existence, and its negation would be self-contradictory, as, e. g., the relation of inherence, of causality, of reciprocity.

"To *conceive*" does not mean to image or represent in the sensuous imagination. It means "to construe in thought" under the Laws of Identity, Non-contradiction, Excluded Middle, and of Sufficient Reason.

Necessity (*ne*, negation, *cesso*, to cease)—the impossibility and self-contradiction of the opposite. “Necessity is not simply the impossibility of the contrary. It implies fixed principles, of judgment from which the impossibility is perceived. It involves logical and ontological principles. It is being penetrated by thought.”—TRENDLENBERG. The necessary laws of thought are necessary laws of things, because the laws of things are the expression of thought.

CONDITIONAL NECESSITY. UNCONDITIONAL NECESSITY.

An idea is *conditionally necessary* when its object is necessarily supposed as the condition of the existence of other objects, as. e.g., substance, personal identity, power, purpose. *Qualities* being given, *substance* must be. *Event* being given, *cause* must be affirmed. *Adaptation* being given, *purpose* must be assumed. An idea is *unconditionally necessary* when the reality of its object does not necessarily suppose the existence of any other object as its cause and explanation, and when the reason affirms that the former object of intuition does and must exist whether any other thing does or does not exist, as, e. g., Absolute Being, Infinite Efficiency, Perfect Personality.

UNIVERSAL. ABSOLUTE.

Universal—That which admits of no exception at any time and in any place—that which is true in all worlds and in all ages—unchangable, permanent, eternal. Absolute—That which is free from, independent of, not subject to, not conditioned or limited by another—self-existent, self-moved, self-sufficient.

UNCONDITIONED.

— Not limited or conditioned by *Quantity*=INFINITE: “There are no bounds.”

— Not limited or condition by *Kind*=ABSOLUTE: “There are no superiors, and no equals.”

— Not limited or conditioned by *Degree*=PERFECT: “There are no defects.”

PRIMITIVE CHARACTERISTICS OF COGNITIONS.

2d STEP of *Method*. Reduce the complex phenomena of cognition to simple and indecomposable elements and ascertain their *primitive characteristics*.

The analysis of the complex phenomena of cognition and its resolution into primary elements so that we may find the Origin of our knowledge is one of the most important problems of phi-

losophy, and must be conducted according to the rules laid down in Methodology (Book ii).

It is one of the most valuable and indisputable principles of the critical philosophy that "*the Understanding has no power of intuition*," that is, "the act of thought cannot create its own objects." Being mediate and reflective it must be based on the immediate and directly presented facts of spontaneous consciousness. (MANSEL: "Prolegomena," p. 47). Our consciousness of single (particular, individual, personal) objects, that is, our First Notions must supply the whole content (material) of our generalized or abstract notions, and our universal principles. (HAMILTON: "Logic," p. 385). It is, therefore, unnecessary to analyze concepts, propositions, and inferences since all the elements of these are contained in our *First Notions*. Here by analysis we must find the elements of all cognition, the material of all thought, and the primitive source of all knowledge.

See COUSIN: "Hist. of Philos.," vol. i., p. 97; ii., p. 267. PORTER: "Human Intellect," pp. 80—81, 497—499. MCCOSH: "Intuitions," pp. 21, 25, 26, 31.

ANALYSIS OF THE FIRST NOTION.

(The cognition of the Impersonal Object, or Non-Ego,)

The analysis of a concrete cognition, or First Notion (say, this apple) into its elements, will give:

I. Certain *Qualities*. It is extended; it is hard—it offers resistance to pressure; it is smooth; it has color, flavor, odor; it is somewhat resonant; and it has form, it is round. These are all separate elements of the notion which have been obtained through separate organs of sense. They are sensible PHENOMENA.

II. These qualities, which may be separated, in thought, from the object, are held together by an underlying nexus or bond—a substratum, or subject, in which they inhere. Hence the idea of SUBSTANCE.

III. The apple has also (1) *temporal* and *spatial* relation. It occupies a definite place in relation to other objects. It began to be, has passed through successive changes, and it will cease to be. The cognition of the apple, therefore, involves the relations of space and time. (2) It has *numerical relations*. It is one, and along with others may be gathered into numerical groups. (3) It has *relations of resemblance* to other existing objects, and may be classified accordingly. The apple cannot be

properly cognized—not even *known* at all, except under these relations, for cognition is possible only under relations of plurality, succession, and difference or resemblance.

IV. The apple is a product or *effect*. Its production was conditioned on certain relations of light, heat, moisture, capillary attraction, and organic chemism, and it was *effected* through the action of a directive *vital force*. All the conditions need to be collocated and adjusted the one to the other. Reason sees in all these collocations and adjustments a causative and efficient *agent*. This is the general relation of cause and effect.

V. The apple fulfils a *purpose*. It is useful. It sustains life and it has certain medicinal properties. It is pleasant for food and gratifies the taste. Here we have the relations of means and ends—adaptation, design.

Here then we have, (i.) *Qualitative and Quantitative Phenomena* apprehended by the several senses. (ii.) *Ideas* of Substance, Cause, Force, Purpose, Design apprehended by the reason, and (iii.) *Relations* cognized by the judgment and spontaneously affirmed. The synthesis of all these elements constitutes our *Notion* of the apple.

(The cognition of the Personal Ego or Self.)

I. I am conscious of certain subjective *Phenomena*: (1) Feelings, pleasurable or painful, (2) Thought-processes, as reflection, comparison, judgment, and inference, (3) Voluntary acts, as attending, deliberating, choosing, refusing, and putting forth energy to realize, or actualize my purposes. These are all PHENOMENA.

II. I am conscious of self as the *subject* of these various affections and states, and the *doer* of these various acts. This is not the consciousness of the phenomena, but the consciousness of *self* as subject and cause, and the consciousness of these acts and states as *mine*. This one presented substance, *Myself*, is the most fundamental, certain, and direct cognition of Being or Reality. “The Reason knows itself.” I am also conscious of *power* or causative efficiency. “The soul is a power conscious of itself.” I am finally conscious of *personal identity*; I am the *same* being under all phenomenal change. These ideas belong to the category of REALITY.

III. I am conscious of *relations*; (1) of Time—the experience of successive states of consciousness in the one, enduring

subject; (2) of resemblance or difference to other persons or things; (3) of dependence upon, and obligation to, other moral personalities. (4) Finally, I am conscious of standing in relation to a moral order, and to a purpose or end to be fulfilled by my existence, namely, the attainment of moral perfection.

Here again we have (i.) *Phenomena* apprehended by internal sense (ii) *Realities* apprehended by the reason, and (iii.) *Relations* cognized by the judgment, and spontaneously affirmed.

(Cognition of the Self-existent Personal Cause.)

All men have a natural, instinctive, and necessary belief in the existence of a *Personal First Cause, the Creator, Sustainer, and Ruler* of the World.

Here is (1) the idea of *Power* or real efficiency adequate to the production of all existence; (2) the idea of *Intelligence* conditioning power in order to the fulfilment of a foreseen and pre-determined purpose; the idea of *Self-existence* that is, of existence which is underived, original, unbeginning; (4) the idea of *Supreme Being*, that is, being which is not conditioned by another—the one, sole, only God.

RESULTS OF PRECEDING ANALYSIS.

I. Elements, or principles of cognition, obtained (A) through single organs of sense—the organs of vision, hearing, touch, smell, taste; the muscular sense; and the vegetative, or ganglionic system of nerves; (B) through the original, general, innate sensitivity which belongs essentially to the spirit as spirit—**PERCEPTS.**

II. Elements, or principles of cognition, that are added to perception, by the immediate, spontaneous apperception of reason, as the necessary antecedents of the phenomena of sense without which all phenomena would be inexplicable—**IDEAS.**

III. Elements, or principles of cognition, that are spontaneously and immediately apprehended and affirmed, and which, (A) as a *real* bond, hold phenomena to reality in the objective sphere, or (B) as an *ideal* bond coördinate the actual and the real in the subjective sphere—**RELATIONS.**

may say 'my feelings,' 'my determination,' but trust him, he will never say 'my truth.'"—COUSIN.

PSYCHOLOGICALLY ANTECEDENT. LOGICALLY ANTECEDENT.

Principles of cognition are of two kinds according as the particular or the universal is regarded as the starting point of knowledge (—the psychological or the logical primitive). A principle, or element is anterior to another in the *logical*, or rational order in so far as it is necessarily presupposed as the foundation and explanation of the other, thus, for example, motion, or change cannot be cognized except as the effect of force. Force or power is, therefore, the *logical antecedent*.

A principle, or element is anterior to another in the psychological or natural order in so far as it is presented to the human mind first in the order of time; for example, the percept of motion, or change must precede the idea of power. Motion, or change is, therefore, the *psychological* (or chronological) *antecedent*.

Percepts are the psychological primitive; ideas are the logical primitive.

See COUSIN: "Hist. of Philos.," vol. ii, pp. 216-218; "Elem. of Psycho.," pp. 472, 523-525.

OCCASION. CAUSE.

It is admitted that apart from sensation and sense-perception there can be no true cognition. Still it is not sensible experience alone which produces consciousness. Sensible experience is the *occasion* (the condition), but the reason is the true *cause* of that knowledge we call consciousness.

First notions are not *transformed* but *informed* sensations—that is sensations illuminated and informed by rational ideas, for without ideas, sensation has no form. The ideas of the Supreme Reason are symbolized or embodied in nature, and it is the apperception of these ideas by the reason of man (made in the image of God) which enables him to translate the affections of the sensibility into consciousness and thought. All light, all comprehension, all coördination comes from the reason. Therefore, reason is the true *cause* of knowledge.

Note.—Between the real *cause* and the *occasion* of any phenomenon there is a clear distinction. The former implies a real, efficient, productive power; the latter, some condition or conditions under which the power is manifested. I cast a grain of wheat into the earth. The *occasion* of its germination and development into leaf, stem, ear, and grain is light, warmth, moisture, etc.; but these are by no means the cause. The *cause*

is the mysterious, organizing force which is immanent in the seed. The rest are but conditions under which or upon which the cause produces the effect.

ULTIMATE CATEGORIES

OF ALL POSSIBLE OBJECTS OF COGNITION.

I. BEING OR REALITY (ABSOLUTE OR DEPENDENT).

(1.) ABSOLUTE BEING. Being *in se* is underived, self-existent, unconditioned, changeless, eternal.

(2.) DEPENDENT BEING OF FINITE EXISTENCE—that which has a permanent, but still derived, dependent, and conditioned being.

II. PHENOMENA (STATICAL, DYNAMICAL, QUANTITATIVE, and QUALITATIVE).

(1.) STATICAL phenomena are the derivatively essential attributes of matter, which are conditions essential to the action of force; as, e. g., Mass, Limit, Position, Distance, Mobility, etc.

(2.) DYNAMICAL phenomena are mental states, vital changes, and forms of mechanical energy consequent upon the action of force or power.

(3.) QUANTITATIVE phenomena are species of Magnitudes, numerical, extensive, or intensive—Magnitude of numbers, Magnitude of extension, Magnitude of degree.

(4.) QUALITATIVE phenomena are subjective affections of the mind as connected with the nervous organization, and belong to bodies only so far as they are supposed capable of specially determining certain sensations in us; such as warmth, cold, sweet, bitter, red, violet, etc.

III. RELATIONS (CONTINGENT and NECESSARY).

(1.) CONTINGENT relations are (A) relations of *resemblance* in form, function, quality, and degree; (B) *numerical* relations—unity, plurality, totality; (C) *spatial* relation—priority, coexistence, succession; (E) *thought* relations—relative unity in intension or extension.

DIVISION I.

PSYCHOLOGY PROPER.

PART I.

INTELLECTUAL PHILOSOPHY.

(B.) DYNAMICS.

Special application of Method to the Intellect. 4TH STEP.
Designate the *powers* of the mind indicated by the preceding analysis of the phenomena of cognition.

The analysis and classification of the phenomena of cognition already made, reveals the following faculties or powers :

I. A general power of *sensitive perception*—a power of seizing upon, distinguishing, and recognizing the phenomena presented in the sensibility (external or internal), and of referring the various sensations and emotions to their source, that is, their various objects, and thus forming *percepts*.

This power is designated SENSE (INTERNAL and EXTERNAL.)

II. A general power of *rational apperception* by which the mind seizes upon what lies back of or beyond the phenomena of sense—the *statical* condition; the *dynamical* source, pushing phenomena into the objective field; and the teleological idea conditioning force for the fulfillment of a specific end.

This power is called REASON, (SUPERNAL SENSE.)

III. A general power of *spontaneous apprehension* by which the mind seizes the necessary correlations between subject and object, phenomena and reality, and combines the correlates into the unity of a FIRST NOTION.

This power is called NATURAL OR PRIMITIVE JUDGMENT.

These are called Primary Faculties of the mind, through the joint or simultaneous action of which the First Notion is formed. The collective or total result of the action of these Powers is SPONTANEOUS CONSCIOUSNESS.

IV. A general power of *retaining, recalling* and *representing* to the mind what has previously been presented to consciousness; that is, representing First Notions.

This power is called MEMORY.

V. A general power of *recombining* First Notions, or parts of First Notions, under new forms, either fantastic or artistic.

This power is called IMAGINATION.

These are called the Secundo - Primary Faculties, because partly spontaneous, and partly reflective. The collective or total result of the action of these powers is REPRESENTATIVE CONSCIOUSNESS.

VI. A general power of *thought proper*—that is, a power to grasp the *relations of objects*, and, by abstraction, comparison, generalization, ideation, inference, and rational integration, to combine the manifold of presentation and representation in the higher unity of pure Reason.

This power is called the UNDERSTANDING.

This is the secondary faculty of the mind, as distinguished from the primary faculties. The result of its exercise is REFLECTIVE CONSCIOUSNESS.

I. SPONTANEOUS CONSCIOUSNESS.

(I.) SENSE (EXTERNAL and INTERNAL.)

(II.) REASON.

(III.) PRIMITIVE JUDGMENT.

I. SENSE.

1. SENSE DEFINED. The term Sense is used strictly to denote the power of *perceiving* (that is grasping, distinguishing, and recognizing) the phenomena of the Sensibility, and of referring sensations, feelings and emotions to their occasion or source, thus differentiating or localizing their objects and forming *percepts*. Or again, Sense (the power), perception (the act) is that general power of the mind by which we distinguish and recognize the affections of the subjective self, and refer these affections to their occasion or source—(A) extra-organic and intra-organic objects (objective objects); (B) purely internal objects, as the primitive original feeling of self, the sense of effort or energy, and the emotions excited by notions, concepts and ideas (subjective objects).

Sense is employed ambiguously to denote sensibility, the faculty of sensitive perception, and even the material organ of sensitive perception. But in philosophy it is employed strictly and exclusively to denote the *faculty of sensitive perception*, that is, of perceiving phenomena, external and internal.

"The phrase, 'we know by the senses,' is ambiguous. If by the senses be meant the bodily organs...I affirm we know nothing by these bodily parts. But if by the senses be meant the *mind exercised in sense-perception*, summoned to activity by the organism and cognizing the external world, then in that sense we know by the senses"—McCOSH: "Intuitions," p. 132.

"Perception is the act by which the mind refers sensations to their source."—MURPHY: "Habit and Intelligence," vol. ii, p. 59.

"The mental recognition of the object to which the change [in the sensibility] is due, is dependent on a higher process to which the name perception is now accorded."—CARPENTER: "Mental Physiology," p. 177.

"The mind, in perception, goes out upon something which has been [the occasion of sensation or feeling] and which, therefore, whether it belong to the outer world or the subjective self, opposes itself to the act of perception as something *objective*."—UEBERWEG: "Logic," p. 78.

"Perception is the power of the soul to localize its sensation."—LOTZE.

2. DISTINCTION BETWEEN SENSE AND SENSIBILITY.

Sensibility is that general capacity of the soul by which it is susceptible of *feeling*—that is, of being affected by impressions upon or changes in the physical organism, of being excited by innate or instinctive desires or appetencies, and of being inspired and stirred by conceptions, thoughts, and ideas.

Sense is that general power or activity of the *intellect* by which it is able to perceive, distinguish and recognize the phenomena of the sensibility, and refer sensations, feelings and emotions to their occasion or source.

3. DISTINCTION BETWEEN SENSATION AND PERCEPTION.

Sensation is the unconscious translation (by the soul) of vibratory motion into feeling; *perception* is the more or less conscious translation of subjective feeling into objective cognition.

Sensation proper is a special kind of *feeling*; perception proper is a special kind of *knowledge*.

Sensation proper is *subjective*; perception proper is *objective*.

Sensation proper is a state; perception proper is an act.

Sensation proper and perception proper are in the inverse ratio of each other.

See HAMILTON: "Metaphysics," pp. 335-340; "Philosophy," pp. 430, 436. MARTINEAU: "Essays," 1st series, pp. 87-89; 2d series, pp. 264-268. UEBERWEG: "Logic," p. 77. PORTER: "Human Intellect," ch. viii; "On the activity of the Soul in sense-perception," p. 210, et seq. FEUCHTERSLEBEN: "Medical Psychology," p. 107.

4. DISTINCTION BETWEEN OUTER SENSE AND INNER SENSE.

Outer or external sense is the faculty presentative or intuitive of the phenomena of the non-ego or matter; the faculty by which we perceive certain affections of the animated or "be-souled" sensorium, and certain extra-organic objects which are in immediate correlation with the organism.

Inner or internal sense is the faculty presentative or intuitive of the phenomena of the metaphysical ego or Spirit; the faculty by which we perceive certain affections, passions, or emotions whereof the soul as a sentient or feeling *subject* is capable, and which have no prototype in organic impressions.

"External perception, [Outer Sense] or perception simply, is the faculty presentative or intuitive of the phenomena of the non-ego, or matter.... Internal perception.... [Inner Sense] is the faculty presentative or intuitive of the phenomena of the ego or mind."—HAMILTON: "Philosophy, p. 247.

"Outer perception has to do with the outer world; inner or psychological perception, with mental or psychic life."—UEBERWEG: "Logic," p. 77.

"We admit at once that, were the question whether we should distinguish under consciousness *two* special faculties.... and bestow distinctive appellatives on consciousness considered as a special faculty cognizant of the *external* world, and on consciousness as more particularly cognizant of the *internal*, this would be highly proper and expedient."—HAMILTON: "Metaphysics," pp. 156, 400

"*External intuition* by which we become cognizant of the phenomena connected with our material organism; *internal intuition* by which we become cognizant of the several successive states and acts of our own minds."—MANSEL: "Ency. Brit.," xiv, p. 562.

See GREEN: "Spiritual Philosophy," vol. i, p. 19. FEUCHTERSLEBEN "Med. Psycho.," p. 84. STÖCKL: "Lehrbuch der Philos.," vol. i, pp. 46, 50.

(A) OUTER SENSE OF EXTERNAL SENSE.

(1) ESSENTIAL NATURE OR EXTERNAL PERCEPTION. In the first place it must be distinctly noted that Sensation and Perception are both *psychical* and not physical phenomena. Sensation is a change in the state of the sensibility, and sensivity or feeling is an affection of the mind and not of the bodily organs—"a subjective experience of the soul, more or less pleasurable or painful."—PORTER: "Human Intellect," p. 128.

See also McCOSH: "Defence of Fundamental Truth," p. 80. CARPENTER: "Mental Physiology," p. 148. UNSER and PROCHASKA: "On the Nervous System," p. 33. MILL: "Logic," B. iii, § 4. MIVART: "Lessons from Nature," p. 67. Prof. MAXWELL: "Nature," vol. iv, p. 13.

Secondly, it must be borne in mind that though, in the adult mind, sensation and perception are general co-existent, and co-existent in the inverse ratio of each other, yet they are not *necessarily* co-existent. "We are inclined to think that what are called the 'ignoble senses' are wholly *impercipient*, and would never, by the mere succession of feelings, waken into consciousness the distinction between subject and objects or reveal their own organic seat....Without pretending to pronounce upon the psychology of the mollusca, we may reasonably doubt whether an animal of that class can affirm, 'I feel a good taste,' or 'this taste is from my food;' and, if so, sensations may exist without involving any cognition, even of themselves....To have a sensation is a state far short of *knowing* that one has them."—MARTINEAU: "Essays," 2nd series, pp. 264, 265. (SPENCER: "Psychology," vol. ii, pp. 98, 99, 373, 374.) "It is very probable that a newly-born infant feels pain without *knowing* that it feels as an individual, and desires without *knowing* that it desires—probable as a matter of fact, and probable because the cognition of the self or me implies the cognition of the not-me, or the external world,—an amount of knowledge which if conceded to the newly-born infant (a great assumption) cannot be conceded to the members of the lowest classes of the animal kingdom, the hydras and oysters, which may possibly feel pain and enjoyment, but have no knowledge of self and not-self."—Dr. LAYCOCK: "Mind and Brain," vol. i, p. 142. "Nothing is more certain than that we may have sensations which are *not perceived at all*.—LEWES: "Physio. of Common Life." vol. ii, p. 59. (MURPHY: "Habit and Intell.," vol. ii, p. 13. CARPENTER: "Hum. Physio.," 7th ed., p. 554.)

Thirdly, Sensation is purely subjective, and, therefore, as such has no *object*. "Objectivity does not belong to sensation at all." Sensation is an affection of the mind occasioned and conditioned by impressions made upon, or molecular changes in the nervous organism. In order that sensation may become perception there needs the spontaneous energy of attention which distinguishes and recognizes the state of the sensibility, and "streaming out through the instruments of sense," refers that state to an external excitant or source—that is, to some intra-organic affection or change, or to some extra-organic object in immediate correlation with the organism, an object which is extended, solid, etc., like the organism. It is only then that "the term *object* acquires its first title to appear."—(MARTINEAU: "Essays," 2d

Series, pp. 267-268.) External perception, or sensitive perception is, therefore, an *act of the intellect*, an act of spontaneous analytic attention, and a translation, by the soul, of sensation into objective cognition. External perception is complex in its nature; in this single act the soul discerns two factors—its own affection or state, and an external material object.

Fourthly, the simplest form in which external, outer perception is experienced is in connection with a *single organ of sense*. The state of clear and distinct cognition we call consciousness, by which we attain to First Notions, is made up of too many elements, empirical, rational and relational, to allow us to determine the precise character of the phenomenal element in sense-perception. It is only when we direct attention to a single act of perception as seeing or hearing, and the simplest *percepts*, as a single color or sound, that we are in a position to determine the essential nature of external perception.

Finally, it must be distinctly noted that the mere *percepts* of sense do not by themselves constitute the complete and distinct consciousness of an object. "Knowledge [clear and distinct knowledge] is the apprehension of being and its relations."—PORTER: "Hum. Intellect," p. 498. The higher orders of animals, and the infant, may have perception and yet not distinct and complete consciousness. We *know* an object only when we cognize it under the relations of time and space, of resemblance and difference, of inherence, causality, reciprocity, and intentionality. The First Notion is composed of sensational, rational and relational elements, or principles, which analysis will reveal and which were originally united in the consciousness by a primitive *synergia*.

(II) CONDITIONS AND MEDIA OR EXTERNAL PERCEPTION. The most fundamental condition of external perception is the mysterious co-existence and blending of Matter and Spirit in one individual—"the Ego of the mental physiologist," which, if it be not absolutely indispensable to the final purpose of creation, yet subserves the most important ends, and seems to indicate that it is the general, if not the universal law of all finite beings in all worlds—the *condition and means by which the energies of the soul are developed in time and space*.

1. We must assume that body is the necessary means of bringing mind, or spirit, into relation with extension, and so of giving it *place*.

Strictly speaking, an unembodied spirit, or pure mind has no relation to *place*. *Whereness*—ubiety, is a pure relation, the relation of body to body. Cancel body, annihilate matter and there is no *here* or *there*. "Place is a relation of extension, and extension is a property of matter, but that which is wholly abstracted from matter, and in speaking of which we deny that it has any properties in common therewith, can in itself be subject to none of its conditions; and we might as well say of a pure spirit that it is hard, heavy or red, or that it is a cubic foot in dimensions, as say that it is *here* or *there*." But when spirit comes into mysterious relation with matter "by means of a corporeal lodgement, it brings itself into alliance with the various properties of the external world, and takes a share in its conditions. Thenceforth mind occupies one *place* at one time."—TAYLOR: "Physical Theory of Another Life," pp. 23, 24.

Extension cannot be predicated of mind without also being predicated of *thought*, and to ascribe it to either would lead to the wildest absurdities, as has been noted and perhaps caricatured by Dr. Thomas Brown. If mind is, like matter, extended and divisible "then it will be no more absurd to talk of the twentieth part of an affirmation, or the quarter of a hope, or the top of a remembrance, or the north-east corner of a comparison, than of the twentieth of a pound, or the different points of the compass, in reference to any part of the globe . . . We are as incapable of forming any conception of what is meant by the quarter of a doubt, or the half of a belief, as of forming an image of a circle without a centre, or of a square without a single angle."—(BROWN: "Lectures on the Philos. of the Human Mind," vol. ii, p. 470. CUDWORTH: "Intell. System of the Universe," vol. iii, p. 392.)

"The statement that the soul is 'nowhere' will excite the ridicule of the unreflecting. We cannot scruple to make that affirmation, whatever the award of thoughtless derision. That which exists *in* space needs not have its *whereabouts* in space."—R. W. HAMILTON: "Revealed Doct. of Future Rewards and Punish's," p. 21.

"The maxim is '*an object may exist and yet be nowhere*,' and I assert that this not only possible, but that the greater part of beings do and must exist after this manner. Thought and extension are wholly incompatible, and can never incorporate in the same subject.—DAVID HUME.

"Our mental experiences, our feelings, and our thoughts have no extension in space, no *place*, no *form*, no *outline*, no mechanical division of parts, and we are incapable of attending to anything mental until we shut out all this."—BAIN: "Mind and Body," p. 135.

"Matter possesses extension, or occupies space, whilst mind has no such property."—Dr. CARPENTER: "Human Physio.," p. 541.

"The soul as a spirit related to the body has no seat, for a spirit has no relations to space."—FEUCHTERSLEBEN: "Med. Psycho.," p. 108.

"If we regard mind as a magnitude, it must be an intensive magnitude which admits of no measurement."—LEWES: "Prob. of Life and mind," vol. ii., p. 384.

"Power is not capable of *situation* and is not confined to what we call *place*, and for this very reason, also, it cannot be placed under geometrical dimensions, nor does it come under any kind of figure whatever, as any one knows.—BAYMA: "Molecular Mechanics," p. 17.

"Material existences must exist in space, no doubt, but intellectual existences may be neither in space nor out of space; they may have no relations to space at all----. For all that I can see, then, there may be intellectual existences to which both space and time are nullities."—JEVONS: "Principles of Science," vol. ii, p. 469.

"Extension in space, in the proper sense of the expression, belongs only to sensible phenomena, while in the sphere of absolute reality juxtaposition of objects is impossible."—BENEKE:

UEBERWEG: "History of Philosophy," vol. ii, p. 287.

2. Corporeity is essential, to bring finite spirit into protensive relations; that is, into relations of *time*.

"It is motion or change that measures duration, and *time* is duration measured into equal parts by the equable motion of bodies in space. But as motion belongs to matter, of which it is a condition, and is that in which duration and extension combine to form a common product, so mind must become related to extension in order to have a knowledge of matter, or to its being able to avail itself of the measure of duration; or, in other words, it is only in connection with matter that it can know anything of *time*."—TAYLOR: "Physical Theory," p. 28. "Pure spirit is timeless as well as spaceless; and we cannot be conscious of 'pure time,' that is, of time simply and in itself. In fact, we have no knowledge of pure time as an entity, notwithstanding the constant references to it. Time is a relation, the relation of successive changes in the state of our experience or in the forms of existence, and changes in the states of our experience must be ultimately dependent on changes in the forms of existence. Knowledge of time, therefore, is nothing else than the consciousness of these changes."—CALDERWOOD: "Philos. of the Infinite," pp. 300, 305.

3. Corporeity is essential to the manifestation of *force*.

Mind, embodied, by the simple act of volition, originates motion; that is, the original, spontaneous power of the soul, through the instrumentality of the motor nerves, and of muscular contractility, as applied to the body itself or to other bodies, puts it or them in motion. This power of the mind to overcome the inertia of matter and the force of gravitation, is the only active influence, in relation to the material world, which we have any certain knowledge of possessing. Indeed, we have no knowledge of force except as the result of immediate volition.

4. Corporeity is essential to the differentiation of *sensations*.

The corporeal alliance of mind and organized matter is the means of bringing the mind into relation with the various modes of motion in the external world, in such a manner that the character of the sensation depends not so much on the properties of the extra-organic object, as on those of the organs which receive the external impression. The mind has, of course, an innate capacity of sensation (*Ursinn*—primitive, original sensibility); if it were not so, material impressions upon the animal organism could not educe feeling. Nevertheless, it is probable that special sensation is conditioned or determined by the corporeal organism. The senses may be regarded as limiting the mind to the kinds of sensation known to actual experience.

TAYLOR: "Physical Theory," pp. 32 and 65.

"Bodily affections are necessary for the soul, in order that it may convert them into sensation."—LOTZE.

UEBERWEG: "Hist. of Philosophy," vol. ii, p. 317.

"Between the mind of man and the outer world are interposed the nerves of the human body, which enable the mind to translate the impressions of that world into facts of consciousness."—TYNDALL: "Frag. of Science," p. 167.

5. Corporeity is the essential condition of *representative imagery*.

"The brain," says Feuchtersleben, "is the focus of representative images, and as such, doubtless essential to the manifestation of physical life." ("Medical Psychol.," p. 105.) The power of representation proper—that is, of imaging objects—is confessedly dependent on organic conditions. When an organ of sense, and the corresponding parts of the brain, disappear, the definite power of representation disappears. There are instances of persons who, having become deaf and blind, no longer remember objects of hearing and sight, and no longer dream of them." HAMILTON: "Metaphysics," p. 461. FEUCHTERSLEBEN: "Medical Psychology," p. 120.

Note.—Beyond this we have no organic point of attack. The mind advances in the processes of thought (through the discrimination, analysis, and recombination of the characteristics and relations of these images), to the formation of concepts, judgments, and inferences, in which processes nothing material is concerned. Consequently, the higher powers of the mind must be excluded from "Mental Physiology."

The mind is related to the body in some such manner as force is related to matter. Force is not an inherent or essential attribute of matter. On the contrary, matter is essentially passive and inert, and does absolutely nothing but supply the statical conditions for the manifestation of physical phenomena. All we can say of it, is "that it is the recipient of impulse and of energy." Force is that which acts upon matter, and produces change or motion. The relation between force and matter is not a relation of identity or analogy. Neither is it a relation of co-extension, because force cannot be placed under geometrical dimensions; nor does it come under any kind of figure. It is simply conceived as a relation of *causality*. And so the relation between physical phenomena (that is, matter acted upon and moved by force,) and mind, is a relation of teleology—that is, force directed to the fulfilment of a specific end. The nexus of that relation is *vitality*, or the principle of life, a force which works towards ends.

"The universe presents us with an assemblage of phenomena, physical, vital, and intellectual. The connecting link between the worlds of intellect and matter being that of organizing *vitality*."—HERSCHEL: "Familiar Lect. on Science," p. 473.

"The principle of life is the power or element, the agency of which brings mind into conscious connection with matter."—TAYLOR: "Physical Theory," p. 163.

"It is in relation with the delicate living matter seated near the surface of the gray matter of the convolutions of the brain, that I conceive *vital power* attains its most exalted form. It is here that the Ego comes into communion with the Non-Ego."—BEALE: "Protoplasm," p. 319, 3d Ed.

The first condition of sense-perception, therefore, is the existence of a material nervous organism, vitalized, and in a healthy, normal condition.

The nervous organism may be described briefly as follows:

I. THE SYMPATHETIC SYSTEM (Ganglionic or Vegetative System) consists of a double chain of nervous ganglia running from the anterior to the posterior extremity of the body, along the front and sides of the spinal column, and connected with each other by slender longitudinal filaments. Each ganglion is re-

enforced by a motor and sensory filament derived from the cerebro-spinal system, and thus the organs under its influence are brought indirectly into communication with external objects and phenomena. The nerves of the great sympathetic are distributed to organs over which the will has no immediate control, as the heart, stomach, liver, intestines, kidneys, etc.

See. DALTON: "Human Physiology," pp. 514-524. CARPENTER: "Human Physiology," pp. 733-737, 7th Ed.

II. CEREBRO-SPINAL SYSTEM, consisting (I) of the CRANIO-SPINAL AXIS which embraces the *Spinal Cord* and the *Sensory Ganglia*, altogether constituting the centre of automatic action : (II) the CEREBRAL HEMISPHERES or Hemispheric ganglia, embracing the *Cerebellum* and *Cerebrum*.

(I) The peripheral filaments of the nerves collect into twigs, the twigs into branches, the branches into boughs, and these into one main stem—the Spinal Cord. This rises in the vertebral column to the foramen magnum where, for some space, it is called the *medulla oblongata*, which divides above into four columns which from before backwards are named (1) the Anterior Pyramids, (2) Lateral Tract and Olivary Body, (3) the Restiform Bodies, and (4) the Posterior Pyramids. The Restiform Bodies terminate in the hemispheres of the Cerebellum ; the remainder terminate in the Corpora Quadrigemina, Corpora Striata, and Thalami Optici.

(II) Under the SENSORY GANGLIA may be comprehended that assemblage of ganglionic masses lying along the base of the skull in man, and partly included in the Medulla Oblongata, in which the nerves of the "special senses"—Taste, Hearing, Sight, and Smell have their terminations. With these may be associated the two pairs of ganglionic bodies known as the Corpora Striata and Thalami Optici, into which may be traced the greater portion of the fibers which constitute the various strands of the Medulla Oblongata, and which seem to stand in the same kind of relation to the nerves of Touch that the Optic, Olfactory, Auditory and Gustatory ganglia bear to their several nerve trunks.

(III) The CEREBELLUM, or little brain, is situated beneath the posterior lobes of the Cerebrum. The surface is not convoluted like the cerebrum, but traversed by numerous curved furrows, "sulci," which penetrate deep into its substance. It contains, in proportion to its size, a much larger quantity of grey

matter than the cerebrum. *It has no direct connection with the cerebrum*, and its relations are altogether with the cerebro-spinal axis. It is the special organ of the Muscular sense, and its special function is that of *coördinating the different voluntary movements*.

(IV) The CEREBRUM. The two hemispheres of the cerebral ganglia constitute, in the human subject, about nine-tenths of the whole mass of the brain. Throughout their whole extent they are entirely destitute of *sensibility* and *excitability*. Both the white and grey matter may be burned, wounded, lacerated, crushed, without any convulsive movements or any apparent sensation. No sensory nerves terminate directly in the cerebrum, nor do any motor nerves issue from it. "We shall find strong anatomical and physiological grounds for believing that it [the cerebrum] *has no direct communication with the external world*."—(CARPENTER: "Hum. Physiology," p. 438.) "It is the focus of *representative images*."—(FEUCHTERSLEBEN: "Med. Psycho.," p. 105).

Regarding the pure, indivisible, incorporeal spirit as the proper Ego, and the body as really a part of the material world, the Non-Ego, and, as such, an object of perception to the Ego or Mind, we may regard the organs of sense-perception as :

I. The SYMPATHETIC or Ganglionic system of nerves by which we become aware of the *states of the body* in the sphere of vegetative life, as, e. g., corporeal heaviness or buoyancy, atony or toneity, hunger, thirst, etc.

II. The MUSCULAR system of nerves (or nerves connected with the muscular system) by which we become aware of the varying condition of the muscles in action and repose, contraction or relaxation, impeded or unimpeded.

Note.—Dr. Beale has shown that every delicate muscular fiber is crossed by delicate nerve-fibers (both voluntary and involuntary); these nerve-fibers "lie upon the external surface of the sarcolemma," and "have no terminal ends." ("Croonian Lect.," 1835). "The sensations appertaining to the muscular sense are transmitted upwards to the Restiform Bodies; these connect with the cerebellum. It is, therefore, the seat of the muscular sense, which has an important share in the guidance of muscular movements."—(CARPENTER: "Hum. Physio." p. 517.)

III. The organs of SPECIAL SENSE.

(1) *Touch*. Nerves diffused throughout the skin—spinal cord—OPTIC THALAMI.

(2) *Sight*. The eyes—optic nerves—TUBERCULA GUADRIGEMINA.

(3) *Hearing*. The ears—auditory nerves—AUDITORY GANGLIA (lying in the substance of the medulla oblongata).

(4) *Smell*. Membraneous walls of nostrils—olfactory nerves—OLFACTORY GANGLIA.

(5) *Taste*. Surface of tongue and soft palate—gustatory nerves—GUSTATORY GANGLIA (lying in the substance of the medulla oblongata).

The second condition of sense-perception is a plurality and diversity of external phenomena, either as molecular changes in the physical organism, or as objects external to, but in immediate correlation with, the organism.

“Independent of the necessary contrast of subject and object, a plurality, alteration, and contrast of phenomena is needed.”—HAMILTON: “Philosophy,” p. 414.

“All consciousness is primarily the consciousness of difference. That is to say, if the mind were to be always experiencing the same sensation, it would never be conscious at all.”—MURPHY: “Habit and Intelligence,” vol. ii, p. 137.

The third condition of sense-perception is a repetition of similar affections, of definite intensity, and some rudimental memory, or more properly “conservation of the past,” which is the condition of memory.

The fourth condition of sense-perception is a certain concentration of the mind on the phenomenon—*an act of attention*.

“Sensations are not perceptions. That they may become so, something must be added, namely, an action of the mind which manifests itself as a spontaneous power, as *attention*.”—PORTER: “Human Intellect,” p. 210.

CARPENTER: “Mental Physiology,” p. 182.

(III.) CLASSES OF EXTERNAL PERCEPTS. The external sense-percepts may be divided into three classes—the *Organic*, the *Muscular*, and the *Special* sense-percepts. This division is determined, in part, by the character of the sensations themselves, and in part by their physiological conditions.

1. The *Organic* sense-percepts are those which have their real *objects* in the sphere of vegetative life, that is, in the nutritative and reproductive organs and functions, which, inasmuch as they are found in plants as well as animals, are called “vegetative.” The states of the vital organs are revealed to us through the Sympathetic or Vegetative System of nerves, sometimes

called "the Nervous System of Organic Life." The whole class of feelings belonging to this system are included under the title of CŒNÆSTHESIS or Common Feeling, and the percepts may be designated *Common Percepts*. They are (a) General; as corporeal buoyancy, tonicity and atony, melancholy, cheerfulness, irritability, etc.; (b) Special; as hunger, thirst, nausea, anxiety from impeded respiration and functional derangement of the heart, etc.

See LEWIS: "Physio. of Common Life," vol. ii, p. 237. FEUCHTERSLEBEN: "Med. Psychology," pp. 91-93.

2. The *Muscular* sense-percepts are those which have their real *objects* in the sphere of the muscular system. The state of the muscles is revealed to us through the system of nerves associated therewith, which have their termination in the Cerebellum, and, perhaps, also in the Corpora Striata. The whole class of feelings which are associated with this system of nerves is included under the title of Muscular Sensations, and these sensations, as objects of perception, are called Muscular sense-percepts. They are muscular motion and repose, tension and relaxation, fatigue, convulsion, and cramp.

Locomotive Energy (sense of Effort), in varying degrees of intensity, associated with Muscular Sense, gives a variety of Percepts. "When I exert an enorganic volition to move [any part of the body] and am aware that the muscles are obedient to the will, but at the same time aware that the limb is arrested in its motion by some *external impediment*, and that the resistance is of *varying degrees of intensity*," I obtain percepts of the Secundo-primary (Statico-dynamical) qualities of matter, or those qualities which result from the action of *force* upon matter, and are contained under the category of *resistance, or pressure*. They are Heavy and Light, Hard and Soft, Solid and Fluid, Viscid and Friable, Tough and Brittle, Rigid and Flexible, Ductile and Inductile, Rough and Smooth, Slippery and Tenacious, Elastic and Inelastic, Compressible and Incompressible, Resilient and Irresilient, Movable and Immovable.

See HAMILTON: "Philos.," pp. 358-360, 391-410 (note *1 running over these pages) 424-431. DR. CARPENTER: "Hum. Physio.," p. 655; "Nature," vol. vi, p. 309. MANSEL: "Metaph.," Ency. Brit., vol. xiv, p. 568.

3. *Special-sense percepts* are those which have their real *objects* external to the organism, but in correlation with organs specially constituted for the function of sense-perception. These organs are commonly called "the five senses". (sense-organs)—

Smell, Taste, Hearing, Touch, and Sight. The objects of the special senses (except in the case of superficial extension) are "certain occult powers" which external objects are *supposed* to possess, by which they are capable of specifically determining the various parts of the nervous apparatus, to the peculiar actions or motions of which they are susceptible. They are, in reality, "forms of Energy"—modes of invisible molecular motion, and constitute the Secondary (Dynamical) properties of bodies. The subjective sensations—Color, Sound, Flavor, Savor, and Tactile sensations (as heat, electric and galvanic affections, etc.)—are mental translations or interpretations of external phenomena, which have no resemblance, whatever, to the external occasion or cause, and in referring these sensations to external objects, the mind *infers* that the objects possess certain specific powers capable of exciting a certain correlated manifestation in us. "The Secondary qualities of bodies are *inferred* powers," and known "only *mediately* in their effects on us."—HAMILTON: "Philos.," pp. 378-9.

(1) Percepts of *Smell*. Odors of almost endless variety, which are indefinite in their position and limits, but the occasions or causes of which are supposed to be external. We classify them in view of the subjective sensations, as refreshing, sickening, aromatic, etc. We name them usually from the objects which are supposed to excite them, as the odor of the rose, violet, peach, apple, etc.

(2) Percepts of *Taste*. Savors of various kinds, and countless in number. They are classified subjectively as bitter, sweet, pungent, acrid, sharp, etc.; objectively, by their inferred occasions or causes, as the taste of salt, aloes, the onion, the apple, etc.

(3) Percepts of *Hearing*. Of these there are a great variety, but they are readily distinguished by quality, intensity, and quantity.

(4) Percepts of *Touch*. Superficial extension, temperature, electric and galvanic affections, titillation, horripilation, shuddering.

(5) Percepts of *Vision*. Illuminated superficial extension, color, outline, direction, relative position.

Note.—It is generally conceded, alike by Physiologists and Psychologists, that the special senses, alone, convey to us no *direct* knowledge of the extra-organic world. "Even touch

[apart from the consciousness of our locomotive energy being resisted] gives no other perception than that of the existence of our own organism as extended."—MANSEL: "Metaphysics," Ency. Brit., xiv, p. 565. "If we lay our hand upon a table (gently), we become conscious, on a little reflection, that we do not feel the table, but merely that part of our skin which the table touches."—MULLER: "Physiology," p. 1081. "It is primarily in the consciousness of our locomotive energy being resisted, and not being resisted by aught in our organism itself, and secondarily, through the sensations of muscular feeling, that the perception of Externality is realized."—HAMILTON: "Philosophy," pp. 431, 424, 394.

(B) INNER, OR INTERNAL SENSE.

Inner, or internal sense is the faculty presentative, or intuitive of the phenomena which belong exclusively and preëminently to the inner psychical life; the faculty by which we perceive, discriminate, and recognize certain original feelings and primitive desires, which are native to the human soul, and certain purely psychical emotions which are awakened and determined within us by conceptions, ideas, and thoughts.

"The internal intuitions [perceptions] as a class, may be described as comprehending all those affections of the mind, which are neither directly caused by conditions of the organism, nor representative of any objects distinct from themselves. The first criterion will distinguish them from sensitive affections [external sense-percepts], the second from intellectual powers, properly so called."—MANSEL: Art. "Metaphysics," Ency. Brit., vol. xiv, p. 568.

"The emotions, to use the felicitous words of Herbert Spencer, are 'generated independently in consciousness, and have no prototype in bodily sensations.'"—MURPHY: "Habit and Intell.," vol. ii, p. 43.

ESSENTIAL NATURE OF INTERNAL PERCEPTION. In order clearly to understand the nature of Internal Perception, we must distinguish three moments, (1) The *percipient Subject*, the person, one and identical; (2) The *states of the sensibility* which have no occasions or prototypes in bodily affections (—primitive feelings, original desires, and purely psychical emotions); (3) The *act of inner perception itself*, which is an act of the intellect, and not a state of the sensibility. If we call the totality of the purely subjective states of the sensibility, which have no antecedents in bodily affections, A; and the act of inner perception itself, B; then B is not identical with A. But the *essence* to which both belong, C, is one and the same essence which perceives, and whose states of feeling are the object of perception. Internal perception, then, is the discrimination and recognition by the soul of those of its own inner states or feelings which are

not occasioned by, and have no prototypes in, bodily affections, as e. g., the feeling of self-hood, the sense of effort, the impulse of self-preservation, the desire to know, etc. 'These are "subjective affections of the soul as pure spirit."

Original innate feeling must be distinguished from common feeling (cœnæsthesis). The latter is associated with the functioning of a distinct system of nerves, the Sympathetic system. But original innate feeling, which is essential to the other particular sensations, may exist independently of a nervous system. See FEUCHTERSLEBEN: "Med. Psycho.," p. 84. CARPENTER: "Comparative Physiology," p. 639. COLERIDGE: "Works," vol. i. p. 166.

Original Impulses (innate desires and tendencies) are the "nature bases" of psychical life, and belong essentially to spirit as spirit. They are the living excitants of the progressive development of man, in which progress, self-development from within, and appropriation from without, mutually condition each other. "The spirit, as created, becomes excited to self-development by innate impulses."—MULLER.

Neither innate feeling, nor original impulse constitute cognition. Mere self-feeling must be conceded to brutes; but self-feeling cannot rise above animal life until it is illuminated and informed by reason. The same is true of instinctive tendency, which, apart from reason, is only blind appetency. Innate feelings and instinctive desires become *objects* to the intellect (percepts) only through attention and self-discrimination.

The *Emotions* or sentiments are a higher class of feelings, which have no prototypes and no analogues in bodily affections. They are purely psychical feelings (pleasurable or painful) which accompany or are consequent upon cognition, but they do not constitute cognition. Like all other feelings they become objects of perception (percepts) only through attention, discrimination, and specification.

CLASSES OF INTERNAL PERCEPTS. The internal percepts may be divided into two classes: (I.) Those which have for their objects certain states of the sensibility which precede all cognition; and (II.) those which have for their objects certain states of the sensibility consequent upon cognition, as the feeling of beauty and sublimity, and the moral and religious emotions.

I. Percepts which have for their objects certain states of the sensibility antecedent to cognition.

1. *Self-hood*. The percept of self in the empirical, not in the metaphysical sense. The feeling of existence, "the sense of

being alive." This is a manifestation of self to self without any reference to what is not self—"the necessary *prius* of the contraposition of other objects."—LOTZE.

2. *Effort or Exertion.* The percept of self as activity, as possessed of autokinetic energy—a pure spontaneity of movement, a self-caused changefulness.

3. *Limitation.* The percepts of self as circumscribed and limited in its activity. This sense of *limitation* is the first dim perception of something other than self, and stands at the beginning of finite consciousness. When this feeling of limitation acquires specific content, it becomes sensation.

4. *Self-assertion, or Self-conservation.* The percept of self-assertion in response to interference, or as resistance to limitations which would otherwise reduce self to the mere life of nature. The effort of sentient being to preserve its existence and its autokinetic energy, which is life and freedom—an innate conservation of self, or, briefly, the the instinct of self-preservation. When this feeling acquires specific content, it becomes alarm or watchfulness, aversion or desire, sympathy or antipathy, pleasure or pain.

5. *Self-love or Self-ness.* The percept of self-ness, or the desire to appropriate everything which heightens self-feeling—the desire of self-gratification in the exercise of power, either by production, or by domination.

6. *Curiosity.* The percept of curiosity, that is, of the desire to know. The craving for knowledge is the impulse to seek mental nourishment. "All men are by nature actuated by the desire to know."—ARISTOTLE: "Metaph.," B. i, ch. i.

II. Percepts which have for their objects certain states of the sensibility consequent upon cognition—the Emotions.

1. *Intellectual.* (1) The pleasure of knowledge, (2) the joy of discovery, (3) the love of truth.

2. *Æsthetical.* (1) Sense of unity in diversity, (2) feeling of sublimity.

3. *Ethical.* (1) Sense of obligation, (2) feeling of moral approbation or disapprobation.

4. *Social.* Love of family,—of friends,—of country,—of humanity.

5. *Religious.* (1) Sense of dependence, (2) reverence, (3) sentiment of the Divine, (4) adoration, (5) gratitude, (6) love to God.

II. REASON.

VARIOUS DESIGNATIONS. *Nóðς*—noetic faculty.—ARISTOTLE. Der reinen Vernunft—the Pure Reason.—KANT. Common Sense.—REID. Supernal Sense.—JACOBI. Intellectual Intuition.—SCHELLING. Spontaneous Reason.—COUSIN. Speculative Reason.—COLERIDGE. Intuitive Reason.—WHEWELL. Pure intellectual, impersonal, cosmical Perceptivity.—MCVICAR.

(1.) REASON DEFINED. *Reason is the organ of universal and necessary Ideas*; the power of spontaneously and immediately apprehending *Ultimate Realities* which lie back of or beyond, produce, and condition all phenomena; the power of intuitively apperceiving the *Metaphenomenal* (or super-sensible), the *Metaphysical*, the *Supernatural*, the *Unconditioned Reality*.

PHENOMENAL—that which appears to sense.	METAPHENOMENAL—the ground of phenomena, the super-sensible.
PHYSICAL—that which is produced or changed.	METAPHYSICAL—that which is permanent.
NATURAL—the becoming, that which begins and ends.	SUPERNATURAL—the cause of all becoming.
CONDITIONED—that which is limited by quantity, kind, or degree.	UNCONDITIONED—the unlimited and undervived which conditions all that is.

Supposing such a faculty of *insight* to be granted, it must be different in *kind*, rather than in degree, from all our logical processes. It cannot proceed discursively (analyzing, abstracting, generalizing, inferring); it must look upon, or behold its objects face to face. If there be such a faculty, it must perceive (as Aristotle says of the Supreme Intellect) by what seems to us like an act of *touch*, a figure half-shadowed when we say we *grasp* or apprehend a truth, and much as St. Paul speaks when he bids us “*feel* God and find Him, who is not far from any one of us.” Reason must be an *intuitive* (INTUEOR—to behold) power—an organ of direct and immediate knowledge.

“We participate in the Becoming with the body and by *sensation*, but we participate in Real Being with the soul and by *reason*.”—PLATO: “*Sophist.*,” § 247.

“We ought, in the first place, to define that which is *ever-existent* and has no beginning, and that which is in a state of *becoming*, but never really *is*. The former of these is apprehended by reflection united to *reason*, and always subsists according to *identity*, while the latter is perceived by *opinion* united with *irrational perception*, since it subsists in a state of mutability and change, and never really *is*.”—PLATO: “*Timæus*,” ch. ix.

Aristotle lays it down, in general, as the condition of the possibility of knowledge, that it does not regress to infinity, but departs from certain *primary principles* which are true, and

whose truth commands assent through and by itself alone. These, as the elements of demonstration, are themselves indemonstrable. The fountain of all certainty, they are themselves absolutely certain, and if ever denied in words, they are always mentally admitted. The faculty of such *principles* is not the discursive or *dianoetic* faculty, but the *noetic* faculty. The intellect proper (νοῦς), the faculty of First Principles, as an immediate apprehension of what really *is*, is in certain respects a sense (αἴσθησις)—a supernal sense.

See HAMILTON: "Philosophy," p. 54.

"As the reality [the phenomenal reality, or better, actuality] revealed by external sense, requires no guarantee, itself affording the best assurance of its truth, so the reality revealed by that deep internal sense we call *reason*, needs no guarantee, being alone and of itself the most competent witness of its veracity. Of necessity, man believes his senses; of necessity, man also believes his reason, and there is no certainty superior to the certainty which this belief contains." "The *reason*, the internal eye, which immediately receives the light of existence [reality] and apprehends reality as the bodily eye apprehends the outline and colors of the sensible world, is an *immediate sense*, which contemplates the invisible."—ANCILLON: "Ueber Glaube," (quoted by HAMILTON: "Philos.," p. 151.)

"I have no objection to define reason, with Jacobi, as an organ bearing the same relation to spiritual objects—the universal, the eternal, the necessary—as the eye bears to material and contingent phenomena."—COLERIDGE: "Works," vol. ii, p. 144.

"There is a higher faculty in man than the understanding, viz., the reason (Vernunft), the pure ultimate light of our nature; wherein lies the foundation of all virtue and all religion."—CARLYLE: Vol. ii, p. 105.

"There is a third faculty in man which I call the faculty of apprehending the *Infinite*—not only in religion, but in all things, —a power independent of sense, . . . a real power, if we see how it has held its own from the beginning of the world."—MAX MULLER: "Science of Religion," p. 14.

"As sensibility puts us in relation with the physical world, so another faculty puts us in relation with truths that depend upon neither the world nor me, and that faculty is reason."—COUSIN: "True, Beautiful, and Good," p. 47.

"Die Vernunft ist das unkörperliche Organ für die Wahrnehmungen des Uebersinnlichen."—JACOBI: "Werke," ii, 35.

"Reason is the faculty which furnishes us with the principles of knowledge *à priori*."—KANT: "Critique," p. 15.

"Man finds within him the capacity of apprehending, in a world of flux and change, the *immutable*; in a world of imperfection, the *perfect*; in a world of relations, the *supra-relative*; in a world of dependence, the *unconditioned*; this capacity is reason."—GREEN: "Spiritual Philos.," p. xxvi, Introd.

"We are gifted with what the Germans call Anschauungsgabe (faculty of intuition—'coöperant reason'), and Einbildungskraft (power of intuition), and by these powers we can lighten the

darkness which surrounds the world of sense.”—TYNDALL: “Fragments,” p. 130.

(II.) DISTINCTION BETWEEN SENSE AND REASON. *Sense* is that faculty of the mind by which we perceive the fleeting and changeful phenomena of nature; the faculty by which we apprehend the various modes in which the sensibility is affected by external, sensible objects. *Reason* is the power by which we apprehend that which lies beyond sensible phenomena, the supersensible substratum, cause, reason, and explanation of all phenomena.

“Man is the high priest and interpreter of nature.” Reason is the organ of those principles by which we attain to a right interpretation. The senses place before us the *characters* in which the Book of Nature is written, but these convey no knowledge without the *key* by which these characters are to be explained. This key to the interpretation of nature is found in the Ideas of the intuitive reason, for these give to phenomena that significance and coherence which is not an object of sense. The antithesis of percepts of sense and ideas of reason is thus the foundation of all philosophy.

See WHEWELL: “*Novum Organon Renovatum*,” pp. 5, 7.

“Nature is a drama, of which reason alone can teach the plot. To the eye of sense the world of phenomena is merely an ever-varying collection of isolated facts, a spectacle which has no significance. *Its mystery is unfolded to the reason alone.*”—M. JOUFFROY.

The material universe is a congeries of moving masses and vibrating molecules, without light or heat or sound as these are known to us, and is, in itself, without any significance and any purpose. It is only when beings appear with the psychical powers of *feeling*, *reason*, and *thought*, that the dark, cold, silent atom-streams reveal themselves as a radiant, and colored, and ardent, and vocal world, and its multitudinous and separate parts are presented in consciousness as an orderly world, having a rational meaning, and a definite purpose and end. Order, meaning, purpose, can only be manifested *to* mind, and can only be the product *of* mind. The entire significance and meaning of sensible phenomena depends, therefore, upon the rational power of interpretation by means of Ideas. The act of knowing the universe is in fact “an after-thinking of *the* thoughts which the

Divine Creative Thinking has built into things.”—UEBERWEG: “Logic,” p. 2.

AGASSIZ: “Essay on Classification,” pp. 8-9. JACKSON: “Philos. of Natural Theology,” p. 152. COUSIN: “Elements of Psychology,” p. 417.

(III.) DISTINCTION BETWEEN UNDERSTANDING AND REASON. The Understanding is the faculty of thought-proper, and deals solely with the *relations* of things. The products of thought are concepts, judgments, laws, inferences. The Reason is the faculty of intuition proper, in its highest form; the power by which we immediately apprehend invisible and super-sensible *realities*.

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| 1. The <i>understanding</i> is discursive—it proceeds by steps from the particular to the general, and from premises to conclusions. | 1. The <i>reason</i> is fixed, and knows no processes—it apprehends its objects by immediate and direct intuition. |
| 2. The judgments of the <i>understanding</i> admit of degrees of certitude. | 2. The intuitions of the reason preclude all degrees; they are absolute. |
| 3. The laws which govern the <i>understanding</i> are imposed by the reason. | 3. The laws of <i>reason</i> are the necessary and universal ideas of the reason itself. |
| 4. The <i>understanding</i> in all its judgments refers to the reason as its ultimate authority. | 4. The <i>reason</i> in all its affirmations appeals only to itself—that is, to its own apperception of realities. |
| 5. The <i>understanding</i> has no power of intuition; the act of thought cannot create its own object. | 5. The <i>reason</i> furnishes to the understanding the necessary element in all cognition. |
| 6. The <i>understanding</i> gives mediate cognition, that is, a knowledge based upon the intuitions of sense and reason. | 6. The <i>reason</i> , in connection with the sense, gives immediate cognition. |

(IV.) REASON IS THE REAL CAUSE, SENSE AND EXPERIENCE ARE THE CONDITIONS OF KNOWLEDGE. It is admitted that apart from sensation and experience there can be no knowledge of the external world; but it is not sensation, nor a repetition of various sensations which constitutes knowledge. Sensation is merely the *occasion*, the true *cause* of knowledge is the intuitive reason with universal and necessary ideas. Thus, its without the observation of contiguous and successive *change*, there could be no clear idea of *cause*; but whenever change is perceived, it presents itself at once to the reason as a manifestation of power, and refers us to a causal ground. Without the perception, by sense, of the *collocation* and *disposition* of objects or parts of objects, there could be no clear idea of *design*; but on such collocations and arrangements being presented the mind intuitively regards them as being intended, or designed. The sensation or perception is not the cause of the judgment, it is simply the occasion. The idea of power is not seen by the senses,

it is seen by the reason. The purpose, or design is not perceived by the material eye, it is not in the mechanism at all. The design, or purpose exists in the mind of the maker of the machine and is perceived by the eye of reason in the arrangement of the parts of the machine, that is, the same idea is excited or *occasioned* in our mind which existed in the mind of the maker or the contriver of the mechanism. "We always single out one *dynamical* antecedent—the power which does the work, or one *rational* antecedent—the purpose for which work is done, from the aggregate of material conditions under which these are manifested."—DR. CARPENTER: "Nature," vol. vi, p. 210.

"There is danger of confounding *conditions* and *causes*. The dilute acid in the battery will attack the zinc only on condition that you connect the zinc and platinum externally by means of a conductor; but this does not make the conductor the agent which dissolves the zinc. I build a wall behind my grape-trellis and I find the ripening of the fruit accelerated; but it is not the wall which does the work, it is still, as before, the sun. The amount of light emitted by my lamp is determined, within certain limits, by the height of the wick; but this does not render the wick the cause of the light. The varying wick is only a varying condition of a varying result of a varying activity of a *constant physical force*—chemical action between oil and oxygen. Similarly, the amount of thought which I can evolve is conditioned by all the affections and conditions of the brain. My poetry and my philosophy are indeed correlated to brain and blood and oxygen and beef-steak, but only in the same way as my boots are correlated to calf-skin and tan-bark and black-wax. These conditioned the exercise of the boot-maker's skill; beef-steak conditioned the exercise of mine. It is quite true that the activity in both cases has other conditions, but it is also true that none of these conditions can be elevated to the dignity of causes. The physical scientist is sometimes hoodwinked by the exact gradation of mental activity to the condition of the brain, and commits the mistake of clothing *condition* with the character of *cause*."—DR. WINCHELL: "Thoughts on Causality," pp. 21, 22.

"Conditions are not actively productive, but are passively permissive; they do not *cause* variation in any direction, but they permit and favor a tendency which already exists."—HUXLEY: "Critiques," etc., p. 273.

"To make the stimulating condition or occasion the cause of cognition is as illogical as to make the setting of the pointer-dog which aroused the attention of the sportsman the cause of the killing of the game."—McCOSH: "Defence," etc., p. 86.

(v.) UNIVERSAL AND NECESSARY IDEAS OF REASON ARE NOT GENERALIZATIONS FROM SENSUOUS EXPERIENCE. It is admitted that the human mind is in possession of universal and necessary ideas or principles—mathematical, ethical, logical, and metaphysical. From whence are they derived, and how are they accounted for?

1. They cannot be derived from *experience*. Experience cannot conduct us to universal and necessary truths; not to universal truths, because she has not tried, and in the nature of things, she cannot try all cases; not to necessary truths, because necessity is not a matter to which experience can testify.

WHEWELL: "Novum Organon," p. 7.

2. They cannot be obtained by *induction*; for it is a fundamental canon of all inductive inference "that no conclusion must contain more than was contained in the premises from which it is drawn." A universal conclusion cannot be drawn from a limited experience.

See HAMILTON: "Metaph." p. 72. MILL: "Logic," B. iii, chap. xxi, § 1.

3. They cannot be accounted for by "the law of inseparable association." J. S. Mill asserts that all our knowledge is derived from sensuous experience, and association of feelings or states of consciousness. What we call "necessary truths" are simply the conjunction of similar experiences rendered inseparable by frequent repetition. He says that "associations produced by contiguity become more certain and rapid by repetition. When two phenomena have been very often experienced in conjunction, and have not in a single instance appeared separately, either in experience or in thought, there is produced between them what has been called an '*inseparable association*' . . . and it is *impossible* for us to think the one disjoined from the other."—"Examination of Sir Wm. Hamilton's Philos.," vol. i, p. 235. These inseparable associations constitute our necessary beliefs.

But on Mr. Mill's own admissions experience and inseparable association are inadequate to account for necessary and universal ideas.

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| <p>1. Experience and generalization give us the knowledge of what is within the range of our observation, with a reasonable extension to adjacent cases.—"LOGIC": B. iii, chap. xxi, § 4, p. 405. Harper's Ed.</p> | <p>1. But we have a knowledge which transcends experience and is really universal and necessary.—"LOGIC": B. i, ch. vii, § 7, p. 104. Harper's Ed. "Exam. of Hamilton," vol. i, pp. 127, 131.</p> |
| <p>2. Experience carries us only from particulars to particulars—from the individual to the individual.—"LOGIC": B. iii, ch. xxi, § 4, p. 405.</p> | <p>2. But from single instances we do get general and even universal propositions.—"LOGIC": B. iii, ch. iii, § 3, p. 228. (p. 345.)</p> |
| <p>3. Experience can give us only the knowledge of the contingent and the relative.—"Exam. of Hamilton": vol. i, pp. 13-27.</p> | <p>3. But we have some knowledge of the necessary and the absolute.—"Exam. of Hamilton": vol. i, pp. 62, 64.</p> |
| <p>4. Experience can give us only the phenomenal-phenomena in their relations of resemblance, co-existence and succession.—"Exam. of Hamilton": vol. i, p. 27.</p> | <p>4. But we have the knowledge of real Being.—"LOGIC": B. i, ch. v, § 5, 6.</p> |

How do we know that the future will be as the past, that is, that the course of nature will be uniform? Do you answer that we know by experience? What do you mean by “knowing by experience?” Experience is only of the past or the present; you cannot mean that the *future* of nature has fallen under your experience, for that would be to say that a *future* event is a *past* event, which is a contradiction. You can only say that you expect (or believe) that the future will be as the past. But *what is the ground of your expectation?* It is said by some, “we have always found the course of nature to be constant, *therefore* we expect it will be so in the future.” This is no explanation at all, or in other words, it takes for granted that which is to be proved. The question is *how* are we able to reason from what we know to what we do not know?—Why do we believe that it is possible or practicable to apply the data of experience to things of which we have no experience? And the answer given is that “we believe that what holds true of what we do know, also holds true of what we do not know,” which is no explanation at all. The question still recurs, what ground have you for that belief?

Do you answer, we arrive at the conclusion by induction? Then we may reply, in the words of Mr. Mill himself: “If we throw the inductive argument into a series of syllogisms, we shall arrive, by more or fewer steps, at an ultimate syllogism which will have for its major premise the principle or axiom of ‘the uniformity of the course of nature.’ Having reached this point, we have the whole field of induction laid out in syllogisms, and every inference exhibited as the conclusion of a ratiocination except one; but this one, unhappily, includes all the rest. Whence came this *universal* major? What proves that all nature is governed by general laws? *Where are the premises of which this is the conclusion?*” —“LOGIC,” B. iii, ch. iii, § 1, p. 240.

If you answer that we have a native, instinctive belief “that the course of nature is uniform,” you concede the point, viz., that we have a source of knowledge distinct from and higher than experience—that is, in pure reason.

(VI.) OUR RATIONAL INTUITIONS ARE NOT THE EMBODIED EXPERIENCES OF PREVIOUS GENERATIONS TRANSMITTED BY INHERITANCE. An attempt has been made by Spencer, Carpenter, and Lewes to reconcile the Experiential and Intuitional schools by an hypothesis known as the “Psychogenetical Hypo-

thesis," which may be thus stated: The constant experiences of the race tend to the formation of certain uniform habits of thought; these habits of thought impress themselves upon the nervous organization with such force as to become permanent, and thus occasion an hereditary transmission to the offspring of "a tendency to similar modes of thought." Such *à priori* forms of thought as Force, Cause, Purpose, Belief in the uniformity of Nature, etc., become thus necessarily connate in the structure of the nervous organization, and the Laws of Thought are inherited in the same way as the instincts of the retriever dog.

See SPENCER: "Principles of Psychology," Eng. Ed., pp. 579-581; Amer. Ed., vol. i, ch. vii, pp. 451-471. LEWES: "Prob. of Life and Mind," vol. i, pp. 195-201. CARPENTER: "Nature," vol. vi, p. 399; "Mental Physiology," ch. ix, "On Common Sense."

1. Our first objection to this theory is *that we cannot inherit more than our fathers had*. If our ancestors gained all their knowledge from experience, it was still only a *limited* experience. All experience, be it that of the individual, or of the race, is *finite*. No amount of experience, however general, could give rise to strictly universal truths; that is, could give us ideas which compel us to deny the possibility that in any world, however different from this, $2+2=5$; or that "two straight lines can enclose space"; or that "a triangle can have the sum of its angles greater or less than two right angles"; or that "a change can take place without a cause"; or that "it is just to be unjust"; or that "A can be A and not—A." Dr. Carpenter says: "The very perception of finite existence leads to the idea of the infinite; the perception of dependent existence leads to the idea of self-existence." *How?* we ask. Again, he says: "We are led to conceive of Him [God] as the absolute, unchangeable, self-existent, infinite in duration, illimitable in space, the highest ideal of Truth, Right, and Beauty." ("Mental Physiol.," p. 247.) The ideas of absolute, unchangeable, self-existent, infinite, illimitable, are, however, a class of conceptions altogether distinct from the notions of the finite, the limited, the dependent, the relative, the changeful, as given in experience, and cannot be developed out of these by any logical or any physical process. Experience is finite, the number of cells and fibres in the brain is finite, and out of these we can not, by any conceivable process, educe the absolute, the infinite, and the perfect.

2. Secondly, the advocates of the doctrine of "inheritance" (physical inheritance) admit that "knowledge cannot descend

from one generation to another." They say we inherit only "an *aptitude* for the acquirement of knowledge,"—a "*tendency* to similar modes of thought," consequent upon a certain configuration of brain tissue, which is transmitted by inheritance. As examples of these hereditary tendencies which have become con-nate in the nervous system, Dr. Carpenter instances "the First Law of motion," "the Law of the conservation of Energy," and "the belief in the uniformity of nature." But these are all real cognitions, generalizations from experience, which are transmitted in books, and communicated by instruction, and in no sense hereditary. No intuitionist has ever regarded these Laws or beliefs as cases of self-evident, necessary, and universal Truths—that is, truths which carry their own evidence, which are at once recognized as necessary, and which have been held by all men, at all times, and in all places,—"*semper, ubique, et ab omnibus.*" That "every event must have a cause" is a real case of self-evident, universal, and necessary truth, which has always been recognized by all men, and is believed with as much confidence by the child and the savage, as by the philosopher.

3. Thirdly, the advocates of this hypothesis do not present the faintest glimmering of a rational explanation of the *modus operandi* of the transmission of intellectual intuitions from one generation to another by a physical process. The transmission of physical peculiarities, constitutional diathesis, and tendencies to bodily diseases, mentioned by Dr. Carpenter, are in nowise analogous; and the hypothesis of "pangenesis" suggested by Darwin, is a physiological romance.

See DARWIN: "Animals and Plants under Domestication," vol. ii, pp. 400-403. MIVART: "On the Origin of Species," ch. x. BEALE: "Protoplasm," 3d Ed., p. 279.

(VII.) IDEAS OF REASON ARE CONSTITUTIVE PRINCIPLES, OR ELEMENTS, AND NOT REGULATIVE, SUBJECTIVE LAWS OF COGNITION.

Kant teaches that ideas of the reason are not *constitutive* principles through which a real knowledge of things in themselves can be obtained, but they are simply *regulative* principles or laws which have a subjective necessity only. Hamilton follows Kant, and designates reason "the Regulate Faculty." He even questions the propriety of using the term "faculty" in this connection. ("Metaphysics," p. 277.) He also teaches, with Kant, that all necessity is *subjective*. "A thing is conceived as

impossible, only as we are unable to construe it in thought." (P. 403.)

And yet, by a strange inconsistency, Hamilton admits that the mind has certain "*native notions*,"—"it has the power of being the native source of certain *necessary à priori cognitions*," (p. 512.) Now the question is, Have these cognitions or notions any real objects external to the mind, or are they illusions? Have they any objective validity, any absolute truth? It is true in itself that "every phenomenon has a cause," and "every quality has a subject." If it is not absolutely true that every quality has a subject of inherence, then it is not certain that we have a soul. If the principle of causality is only a subjective law of our mind, the external world which this principle discloses to us loses its reality, it is only a succession of phenomena. Matter exists no more than soul. Everything is reduced to mobile appearance, to a perpetual becoming, there is no permanent being, or reality. Hume, the skeptic, remains master of the field.

Cousin: "True, Beautiful, and Good," pp. 65-67.

Now, we contend that these ideas of the reason, and the necessary cognitions to which they give rise, have an absolute value in themselves. For every true percept of sense there must be a real object, external or internal. *The intuition must be determined by the object intuited.* The existence outside of consciousness is permeated by reason, conformable to reason, and therefore necessarily determines the idea in our reason.—(UEBERWER: "Logic," p. 2.)

It is the very nature of reason to have an immediate knowledge or vision of spiritual truth and real being, even as sense-perception gazes upon external phenomena. If, in perception, as Hamilton contends, we have an immediate knowledge, "a consciousness of external reality," may we not also be as directly conscious of super-sensible and invisible realities through the reason? On any consistent theory of knowledge, the ideas of reason are no more subjective than the percepts of sense. All knowledge implies a *subject* and an *object*. Now, if, as Hamilton asserts, we have "*necessary à priori cognitions*," where and what are the objects of these cognitions? They are certainly beyond the sphere of sense. Take for example the idea of Cause. It is now universally conceded that we have no perception by the senses of any causal connection or *nexus* in the material

world. (MANSEL: "Prolegom.," pp. 258, 276. GROVE: "Corr. and Conser. of Force," p. 20.) Where, then, is the *object* of this "*à priori* cognition," and by what organ or faculty is it known? We conclude that human reason is not so much the "seat" as the "organ of principles," just as sense is not the seat of phantasms, but the organ by which we perceive phenomena. By a higher warrant than can be claimed that in the act of perception we have a *real* knowledge of the external object, do we claim that, in rational intuition, reason beholds its object face to face. Even the validity and significancy of sense-perception is derived from that element in the cognition of externality which reason supplies. "The phantasms of the schools have been swept away from the theory of natural vision, but these other phantasms—the abstractions of sense mistaken for the realities of reason—still remain to perplex our spiritual vision, and confuse our philosophy."—Prof. SMITH: "Theo. Review," 1861, January No., p. 140.

"The *manifestations* of the infinite Reason are external to my consciousness, they are processes in time which correspond to the Divine Thought, which is 'a *becoming*,' as distinguished from the Divine Reason which is an 'eternal *being*.' But the being of God as the infinite and eternal Reason is always *immanent* to the human soul. . . . The human mind must be, so to speak, constitutionally permeated with a nascent knowledge of the Omnipotent, the Infinite, the Absolute, and the Perfect. In a word, in virtue of the universal law of assimilation, and the abiding presence, to the soul of man, of the Infinite Reason, there must exist in the mind of man those abiding modes of mental action which go by the name of first principles, *à priori* cognitions, laws of thought, or, in a word, *ideas of pure reason*."—MCVICAR: "Sketch of Philos.," p. 84.

"The correlation of mind with the physical and vital forces, considered in relation to design in creation, or the doctrine of Ends, brings the highest manifestations of mind—as a creative and regulative power—into synthesis with creation, and, consecutively, into synthesis with the human mind. The ideas of the Divine Mind, as revealed in the phenomena of creation, are none other than the fundamental ideas and *à priori* conceptions of the human mind, as revealed in consciousness."—DR. LAYCOCK: "Mind and Brain," vol. i, p. 114.

AGASSIZ: "Essay on Classification," pp. 8-12.

(VIII.) IMPERSONALITY OF IDEAS OF THE REASON. The Will is preëminently the Ego or person. In all its various acts we are conscious of freedom. Our volitions are enstamped with the impress of our *personality*. Our volitions are our own. Our desires are our own. Our emotions are our own. Even our sensations are our own. That which we experience of all such phe-

nomena is not experienced in the same manner by any one else. But not so in the case of our rational ideas, and our intuitive, spontaneous judgments determined by rational ideas. Reason does not modify itself to our tastes, our circumstances, our organization; we cannot in all cases think as we please; neither can we be educated by others to think in opposition to the dictates of pure reason. Try to conceive that $2+2=5$; that two parallel lines can enclose space; that a triangle can have the sum of its angles greater or less than two right angles; that an event can happen without a cause, or that the just is not obligatory. You will try in vain. Reason will impose upon you and upon all men the same necessary judgments, and we should regard the man as insane who rejected the authority of reason. Furthermore, if the ideas of reason and the judgments they necessitate were not impersonal, that is, if they were merely individual, we should not dream of demanding that other individuals should conform their actions thereto. To force our personal conceptions and judgments, and our individual determinations, upon others would be the most extravagant despotism. But we know that necessary truths have no element of personality about them; they do not belong to one human being more than another; they are the common patrimony of our rational nature—a direct emanation from God.

The question as to the impersonality of the ideas of the reason lies at the foundation of another question, namely, whether we have an organon of Philosophy? The settlement of the former determines the fate of the latter. If it be decided that the ideas of the reason are impersonal, then that impersonality logically accounts for, and guarantees the *objective validity* of the *à priori*, necessary and universal ideas which constitute that organon. But if the ideas of reason are personal, are individual, they have no authority beyond the limits of the individual subject.

See MORELL: "Hist. of Philos.," p. 650. COUSIN: "Hist. of Philos.," vol. i, pp. 85, 86, 126-133; "True, Beautiful and Good." pp. 79-73. MARTINEAU: "Essays," 1st series, p. 373.

(IX.) THE IDEAS OF THE REASON, A REVELATION OF IMMUTABLE AND PERMANENT REALITIES. The absolute ideas of the reason are the reflection within our spirits of eternal and immutable things, as they really are. They are an emanation from that Eternal Reason which fashioned, and which still governs the universe by laws of unerring truth, beauty and

righteousness, and which, so far as they are manifested at all, are manifested to every rational mind alike. "Reason is literally and truly a REVELATION, a necessary and universal revelation which is wanting to no man, and which enlightens every man that comes into the world—*illuinaſ omnem hominem venientem in hunc mundum*. Reason is the λόγος of Pythagoras, Plato," and Philo.—COUSIN: "Elem. of Psycho.," pp. 436-437.

"There is a ſpirit in man, and the INSPIRATION of the Almighty giveth him understanding."—JOB, xxxii, 8. "He teacheth us more than the beaſts of the earth, and maketh us wiſer than the fowls of heaven."—JOB, xxxv, 11.

"What and whence are thoſe primary *ideas* of conſciouſneſs which conſtitute or preſuppoſe our deepeſt, though not our full-eſt faith? Are they of our own making?—of our own finding? Have we any thing to do with their geneſis? Do they not report to us of the neceſſary and the eternal? And are they not the preſence with us of the Eternal, whereof nothing temporal and finite can report? The reaſon in us is not perſonal to us, but a *manifeſtation in our conſciouſneſs of the Infinite Reaſon, preſenting us with its ſupernatural realities*. Reason is the Logos, which is at once the objective truth and the ſubjective revelation of God."—MARTINEAU: "Essays," 1ſt ſeries, p. 373.

"It is evident that as God is in the univerſe, and the univerſe in God—that the Divinity is IN US ALSO, in a certain ſort, as the *univerſal* mover of the ſoul. For the principle of Reaſon is not reaſon itſelf but ſomething better. Now, what can we ſay is better than the univerſe except God."—ARISTOTLE: "Eth. Eud." L. vii, c. 14.

"The ſcientific inquirer is able to paſs beyond the variable and contingent phenomena of conſciouſneſs and life, to an Energy in action—a *quoddam Divinum*—which is the ſource of all univerſal and neceſſary truth."—LAYCOCK: "Mind and Brain," vol. i, p. 81.

See CUDWORTH: "Intell. System of the Universe," vol. iii, p. 71. GREEN: "Spiritual Philoſ.," vol. i, Intro. xxvii. BUTLER: "Hiſt. of Ancient Philoſ.," vol. i, p. 55. JACOBI: (in UEBERWEG: "Hiſt. of Philoſ.," vol. ii, p. 200.) ROSMINI: (Ibid., vol. ii, p. 491). COLERIDGE: "Works," vol. i, pp. 241-242, 460.

(X.) CRITERIA OF IDEAS OF REASON. In order to a complete enumeration of the fundamental Ideas of the Reaſon, we muſt clearly underſtand by what Criteria they are to be identified.

(1) They are *Self-evident*. Ideas of the reaſon ſhine in their own light and carry their own evidence. No explanation can make them *clearer*, no demonſtration can make them more *certain* than they are when firſt apprehended.

(2) They are *Original*. Ideas of reaſon are original and ultimate, that is, they are not deduced from, nor comprehended

under any higher notion or belief. "Deeper than science and more certain than demonstration," they are the original premises from which all other truths are inferred.

(3) They are *Simple*. Ideas of reason are incapable of analysis, that is, they cannot be resolved into a plurality of elements, because they are the simplest of all elements of cognition.

(4) They are *Necessary*. We cannot construe in thought their opposites, and their negation is self-contradictory and impossible.

(5) They are *Catholic*. They are held by all men, and have been held by all men at all times, and in all places—*semper, ubique, et ab omnibus*.

(6) They are *strictly Universal*. They admit of no possible or conceivable exceptions. They are true in all ages and in all worlds.

(XI.) EXPLICATION AND ENUMERATION OF THE IDEAS OF THE REASON. A clear explication, and complete enumeration of the principles of Common Sense, i. e. the Ideas of the Reason "is one of the chief desiderata of Logic," (REID), "the most important problem of Philosophy," (HAMILTON) and "the most delicate undertaking of Psychology," (COUSIN). When properly achieved it will constitute "the organon of Pure Reason."—(KANT).

In order to a true Philosophy of the human mind there is needed, not simply a mere enumeration of the Ideas of the Reason, and a vindication of their absolute authority, but an orderly digest of them in their genesis and their mutual relationship.

ONTOLOGICAL IDEAS.

I. BEING OR REALITY (*Substance-Subsistens*—that which really is and abides)—that which is permanent, persistent, constant, in contradiction to all phenomenal change; (*Substans*—that which lies under and sustains)—the continent and support of motion, life, and thought. (1) SPIRIT as a permanent reality, having self-manifesting and self-directing power. (2) MATTER as a permanent substratum, the statical condition for the manifestation of power.

BEING OR REALITY is either dependent or absolute. Finite dependent Existence is real but derived existence, and necessarily supposes another reality which is absolute and ultimate, as its cause—the Being of Beings (τὸ ὄντως ὄν).

NOTE.—It is admitted on all hands that inner and outer sense give us only phenomena—changes, qualities, and states of matter and mind.

II. ABSOLUTE UNITY OR UNICITY—(INCOMPOSITE UNITY). Absolute unity is the negation of all plurality and complexity of parts, and is strictly synonymous with simplicity or indivisibility. It does not necessarily involve finitude or infinitude, limitation or illimitation, and is perfectly compatible with either. It is preëminently the unity which is possessed by Mind.

UNITY is either absolute or relative. Absolute unity is UNICITY—perfect indivisibility; relative unity (numerical, organic or logical) is TOTALITY. The former is an idea of the reason, the latter is a concept of the understanding.

NOTE.—The senses give us only plurality, multitude; and from plurality added as many times as you please we cannot deduce unicity, but simply totality. Even our conception of totality presupposes the absolute unity of the Ego, which combines plurality unto unity, “all arithmetic supposes an arithmetician” who is himself a unity.

III. ABSOLUTE IDENTITY OR INDIVISIBLE DURATION. Absolute identity or sameness is the negation of all diversity and succession. It is persistent unity and continuity of duration; an absolute sameness cognized beneath or beyond all diversity, change and succession. It does not necessarily involve finitude or infinitude (finite duration—TIME, or infinite duration—ETERNITY,) and is compatible with either. It is preëminently the identity of the metaphysical Ego or person.

IDENTITY is either absolute or relative. Absolute identity is the persistence or continuity of being—indivisible duration; relative identity is the recognized sameness or equality of two separate existences. The former is an idea of the reason, the latter an understanding concept.

NOTE.—The senses give us only diversity, change, succession, and out of diversity we cannot generalize identity. Indivisible duration, whether of a finite essence or of the Infinite One, is distinct from succession, which presupposes duration instead of being presupposed by it. “Things cannot *succeed* except by relation to a something which *endures*.” Even related succession can only be conceived by a being who is identical.

IV. UNCONDITIONEDNESS—(ILLIMITATION BY QUANTITY, KIND, OR DEGREE). Unconditionedness is freedom from all limitation by *Quantity* (intensive, extensive, protensive), by *Kind* (coördinate or superordinate), or by *Degree*. Being, which

is Self-existent, Self-determined, Self-complete, the ground and cause of all determined, conditioned, and relative existence—the Infinite and Absolute Personality.

UNCONDITIONED	Not conditioned by Quantity—INFINITE	Protensive Quantity Extensive Quantity Intensive Quantity	ETERNITY IMMENSITY OMNIPOTENCE
	by Kind—ABSOLUTE	Co-ordinate Kind Superordinate Kind	ONLINESS SUPREMACY
	by Degree—PERFECT	Intelligence Freedom Love	OMNISCIENCE RIGHTEOUSNESS BENEVOLENCE

PNEUMATOLOGICAL IDEAS (SPIRIT).

I. POWER—(SPONTANEITY, VITALITY, *Vis Voluntatis*). The ability to originate change and motion *de novo*. The efficient and adequate principle of all action, whether immanent (i. e. change of subjective state—VOLITION), or transitive (i. e. change in objective relations—MOTION).

NOTE.—Power is not an object of sense. All that we perceive is change, succession, motion. It is universally agreed that we have no perception by the senses of a causal connection or nexus in the external world. The only experience we have of causality is the consciousness of *effort or exertion* accompanied with an intention thereby to accomplish an end.

II. SENSIBILITY. The original, innate, fundamental capacity of *feeling* (—desire, emotion, sympathy, compassion, love)—the essential basis of all character.

NOTE.—Sensibility is not a property of matter nor a result of organization, it is an essential attribute of spirit whether finite or infinite. It is not by science that the nature of feeling can be either known or explained.

III. IDEALITY. The ultimate source and fountain of all *ideals* and *ends*. The absolute first principle of all *order* and all *adaptation*; the foundation of all law, and the source of all intellectual light.

NOTE.—Order, purpose, design, law, are not objects of sense; all that we perceive by the senses is a certain collocation and disposition of matter in space; it is the reason which gives law, unity of thought, purpose, intention.

The synthesis of Power, Reason, and Feeling constitutes PERSONALITY. The possession of truly individualized Power—a potentiality or energy, which shall be a *cause* in its own right, which shall see its own way, and have a reason for action within itself, constitutes a *Person*.

HYLEKOLOGICAL IDEAS (MATTER).

“The essential attributes of matter may be deduced *à priori*, the bare notion of matter being given.”—HAMILTON.

I. INERTIA OR MASS. The statical condition necessary to the manifestation of force; or the negation or non-existence of power to change its own state of motion or of rest. “The sole unalterable property of matter is its MASS. At the revival of science this property was expressed by the phrase *inertia* of matter. . . . No part of this mass can be due to supposed centres of force.” MAXWELL. “There is one wonderful condition of matter, perhaps its only true indication, namely *inertia*.”—FARADAY.

II. ULTIMATE LIMIT. The necessary conception of matter as consisting of ultimate discrete particles—individual molecules, one and indivisible by any existing forces—the atomic constitution of matter. The atomic theory demands from us a belief in the existence of a *limit* to division; and if we resolve matter into “centres of force” we still trace it to a *limit*. Discrete quantity is an empirical fact, and reason demands ultimate units as its necessary condition.

III. ULTIMATE CONTINUITY. The necessary and essential attribute of occupying space of three dimensions—length, breadth, and depth. Assuming that matter consists of ultimate units, actually indivisible by existing forces, “they must be physical and real units occupying a finite portion of space and forming measurable constituents of solid bodies.”—THOMSON. If they are not extended, the aggregate sum cannot constitute an extended body. “The absolute continuity of matter is therefore a simple *idea* irreducible to lower terms.”—ABBOT.

IV. ULTIMATE INCOMPRESSIBILITY. That necessary and essential attribute of matter by which it fills a definite portion of space so that two particles or atoms cannot occupy the same portion of space at the same instant of time—“the impossibility of conceiving of its being reduced from what is to what is not extended.”—HAMILTON.

DYNAMICAL IDEAS (POWER).

Power is inherent ability to originate change or motion—the principle of action, immanent or transeunt. “It is a hyper-physical idea, a postulate of reason applied to nature.”—MARTINEAU.

I. ACTION is the exertion or manifestation of Power—the conditioning of power to accomplish an end. It is either *immanent* or *transeunt*. An immanent act has no effect on anything beyond the agent. A transeunt act produces a result outside of or beyond the agent. The first is VOLITION ; the second is exertion, effort, or FORCE.

“We have the consciousness of *effort* accompanied with intention thereby to accomplish an end, when we exert power to put matter in motion, which gives us the internal experience of *force*, and all our knowledge of mechanical force in the material world is derived from this conscious effort we make in producing motion. All other attempts to render an account of that deep mystery of the universe, mechanical force, are abortive.—HERSCHEL. “Mind is the one and only source of Power.”—CARPENTER. “The conception of force is a mental or spiritual conception.”—MURPHY.

II. FORCE is conditioned Power—the amount of effort or impulse needed to impart a specific velocity to a given mass, and is measured by the momentum generated by it in unit of time.

“The impulse of a force is equal to the momentum produced by it.”—MAXWELL. “The magnitude of a force is represented by the product of the mass into the velocity produced in it by the action of the force in unit of time.”—STEWART.

III. ENERGY is the continuous power of doing work, and work is done when resistance is overcome. “All energy has its origin in force, but energy is not the same as force. Energy is due to the action of force. The quantity of energy is due to the intensity of the force multiplied into the space through which the force acts, and is proportionate to the mass multiplied into the square of its velocity.”—MURPHY.

ÆSTHETICAL IDEAS.

Beauty is ideal UNITY in DIVERSITY. “The highest beauty is associated with the largest complexity and the most perfect unity, as in man.”

I. UNITY OF FORM (*Symmetry, Harmony*). Having the parts of a collocated or organic whole in due proportion and just adaptation to each other.

II. UNITY OF GROUPING (*Order, Coördination*). The regular and methodical disposition of lesser wholes in groups and classes.

III. UNITY OF SERIES (*Rhythm of Motion*). The uniform measure and proportionality of succession in action, sound, or language.

IV. UNITY OF PURPOSE (*Subordination, Fitness*). Just adaptation of means to ends, of action to law, and of structure to function.

V. UNITY OF MORAL ACTION (*Moral Order, Righteousness, Benevolence*). The conformity of freedom to Law, and the surrender of self-interest to Love.

MATHEMATICAL IDEAS.

“Mathematics is the science of Quantities (*numerical, extensive, and intensive*), and of Quantitative Relations.”—ABBOT. (COMTE, MONTFERRIER, “*Encyclopédie Mathématique*”).

I. UNITY, (and the relations of discrete quantity—totality, equality, proportionality). The absolute unity or oneness of the thinking subject is the condition of all numeration. There can be no arithmetic without an arithmetician. Every number, although inconceivably great, is impossible unless UNITY be given as its basis.

II. CONTINUITY OF MATTER (and the relations of co-existent positions). The existence of matter as the condition *sine qui non* for the manifestation of force is a rational idea, and the idea of its ultimate continuity is necessarily *à priori*. Space, understood in any other sense than as “the relation of coëxistent positions” does not come under the category of quantity. The antithesis of space is immensity, which is an attribute of God alone.

III. DURATION OF EXISTENCE, (and the relations of succession). The idea of Duration rests solely upon our conscious Identity. Succession necessarily implies identity or permanence. Time is duration measured into equal parts by the rhythmical motion of bodies or molecules. The antithesis of time is eternity, which is an attribute of God alone.

IV. LIMIT AND DETERMINATE FORM, (the perfect circle, sphere, triangle, square). “Mathematics is the science of the determination of LIMITS.”—ABBOT.

NOTE.—Inasmuch as quantity is defined as “that which is susceptible of augmentation or diminution” (“*Encyclopédie Mathém.*”—Tome I, p. xiii), an “infinite quantity” is a contradiction in terms. “It will be observed that 0 does not represent absolute zero, and that ∞ does not express absolute infinity”—(PRICE “*Infinitesimal Calculus*,” Vol. I, p. xiii). The “infinite” of mathematics is the “indefinite.”—(CARNOT “*Réflexions sur la Métaph. du Calcul Infinitésimal*,” 1813, pp. 19, 20).

See *North American Review*, 1864, Oct., pp. 430, 431.

LOGICAL IDEAS.

IDENTITY, (*absolute or relative*) in DIVERSITY of phenomena is the foundation of Logic, as the science of the Laws of Thought. Identity of Essence and Equality of Ratios (relations and reasons) or, "Homogeneity of Terms and Identity of Ratios," is the basis of all valid generalization and ratiocination.

I. IDENTITY OF ESSENCE. The absolute *sameness*, or permanence of the knowing subject, or Ego, is the condition of all *analytic* inference, because it justifies the assumption that there must be an ultimate ESSENCE in individual things, distinct from their individual characteristics, which authorizes their union in thought. (UNIVERSALIA IN RE). Hence the *Principle of Identity*—"the same attributes constitute the same essence," or "identical existences must have the same essential attributes."

NOTE.—The essence is the totality of those permanent attributes which constitute the common basis of a multitude of other specific and individual qualities.

II. NON-CONTRADICTION. (*Falsehood of Contradictory Opposition*). The negative expression of the law of Identity gives another principle, viz: that "identical existences cannot have contradictory attributes," or "the same attributes cannot be affirmed and denied of the same subject." Hence, the *Principle of Non-contradiction*—"Judgments opposed as contradictory to each other cannot *both* be true."

III. EXCLUDED MIDDLE. (*Exclusive of a third or middle Judgment*). The law of Identity in its positive and negative expression, (i. e. the principle of Identity, and of Non-contradiction) leaves us no middle course between contradictory attributions; *one* or *other* must be true. Hence, the *Principle of Excluded Middle*. "Of contradictory attributes we can only affirm *one* of the same subject, and if one be explicitly affirmed the other is implicitly denied."

IV. IDENTITY OF RATIOS, (*relations and reasons*). The identity or absolute sameness of REASON in all men, and the impersonality of the ideas of reason, is the condition of all *synthetic* inference, because it justifies the assumption that the reason of man is identical with the Divine reason, and that the relations of things in nature are the product of the Divine Will (—the synthesis of Reason and Power), therefore, the laws of thought are laws of things.—(UNIVERSALIA ANTE REM). Hence, the *Principle of Sufficient Reason*. "Whatever exists, or is true, must

have a sufficient reason why the thing or proposition should be as it is, and not otherwise."

From this principle it follows that, whatever essential relations (necessary correlations) are found to exist between attribute and subject, phenomena and cause, means and end, the determinate and the determinant, the relative and the absolute (—the cause of all relations) must be predicated of all analogous cases at all times, because all nature is *conformed to LAW*, that is, to IDEALS and END.

ETHICAL IDEAS.

PERSONALITY, or the synthesis of Reason, Freedom and Love, is the basis of all ethical relations, i. e. the relations of Person to Person.

I. THE HIGHEST GOOD. (*The idea of the Perfect Good.*) (1) The personality of God is, *per se*, the Absolute Good, that is, the perfect intelligence, freedom, and benevolence of God, is the highest good. (2) The actualized or perfectly realized personality of man, that is, the complete development of his intelligence, freedom, and benevolence, is the highest good for man —resemblance of human personality to the Divine.—(PLATO).

"Human personality, conceived in its purity and perfection, is the one and universal type which should assume form in a realm of human entities or individuals, each man on his own account, and all in unison must work out the realization of this grand aim."—MARTENSEN. "Ethics," p. 3. "The formation of noble human character is the highest work that man or, so far as we know, that God, can be engaged in."—MURPHY. "*Scient. Basis of Faith*," p. 39.

II. MORAL LAW. (*The Good as a norm for the Will*). RESPECT ALL PERSONALITY, that is, esteem and treat the moral Person according to its intrinsic DIGNITY, and its relative EXCELLENCE and DESERT.

To esteem and treat the moral person according to its inherent and intrinsic dignity is BENEVOLENCE; to esteem and treat the moral person according to its relative, that is, self-determined excellence, is JUSTICE.

III. OBLIGATION OR DUTY. (*The Good as Obligatory*). It is because there is in me a moral Personality (reason, freedom, and love,) that I am *obliged* to respect it, and that I have also the right to demand that it shall be respected by others. And, conversely, I am under obligation to esteem moral personality in all other beings, and do unto others as I ex-

pect and demand they shall do unto me. *My rights are the exact measure of my duties.* If I perform my duty I actualize the *good*; if I violate my duty I actualize the *evil*.

IV. MORAL DESERT. The ideas of merit and demerit are essentially united with the ideas of good and evil. He who respects his own personality and seeks its perfection; he who respects the personality of others and accords its rights, has *merit* or *praiseworthiness*. He who fails to do this, has *demerit* or *blameworthiness*.

V. RETRIBUTION. (*Return or repayment corresponding to desert*). Merit is the natural right to be approved and *rewarded*; demerit is the natural liability to be condemned and *punished*. Merit and demerit, as a lawful debt, imperatively demand a proper satisfaction.

SCHEMA OF THE IDEAS OF THE REASON.

The ideas of the reason may be divided into those which are *primary* and those which are *secondary*. The primary are the logical antecedents or correlatives of the *phenomena of sense*; the secondary are the logical antecedents or correlatives of the *concepts of the understanding*.

PRIMARY.

SECONDARY.

ONTOLOGICAL,

Phenomenal changes and states

BEING OR REALITY.

Change and State
(1) internal
(2) external

SPIRIT (Cause)
MATTER. (Condition)
coexistence of properties

feeling, cognition, volition, PNEUMATOLOGICAL
HYLEKOLOGICAL
motion, succession, work DYNAMICAL

numerical, extensive and intensive magnitudes

MATHEMATICAL

Multeity

UNICITY

multiplicity in unity

ÆSTHETICAL.

Diversity

IDENTITY.

identity in diversity

LOGICAL

Conditionedness

UNCONDITIONEDNESS.

OR
INFINITE AND ABSOLUTE PERSONALITY
relation of person to person ETHICAL.

{ SENSIBILITY
IDEALITY

{ SPONTANEITY
INERTIA

{ CONTINUITY
INCOMPRESSIBILITY

{ LIMIT
ACTION OR EXERTION

{ FORCE
ENERGY

{ UNITY
CONTINUITY

{ DURATION
DETERMINATE FORM

{ UNITY IN FORM
IN GROUPING

{ IN SERIES
IN PURPOSE

{ IN MORAL ACTION

{ IDENTITY IN ESSENCE
IDENTITY IN RELATIONS

{ IDENTITY IN CAUSES

{ HIGHEST GOOD
MORAL LAW

{ DUTY
MORAL DESERT

{ RETRIBUTION

III.

PRIMITIVE (SPONTANEOUS, PSYCHOLOGICAL) JUDGMENT.

(1) DEFINITION. *Primitive Judgment* is that power of the indivisible Ego (an absolute unity) by which it spontaneously and intuitively apprehends the necessary relations between the percepts of sense and the ideas of the reason, and grasps them into the unity of a first notion, or primitive cognition. It is the natural synthesis of percepts and ideas, under necessary relations, constituting the unity of consciousness and the affirmation of the reality of the object of that consciousness.

JUDGMENTS ARE OF TWO CLASSES. (1) They are judgments in which we acquire direct and immediate knowledge concerning objects of which we were before ignorant, or (2) they are judgments in which we elaborate, classify, systematize, account for, and apply the knowledge already acquired. The former are NATURAL, SPONTANEOUS, INTUITIVE, PSYCHOLOGICAL JUDGMENTS, and constitute the unity of *spontaneous consciousness*, the latter are artificial, (as opposed to natural) reflective, discursive, logical judgments, and constitute the unity of *reflective consciousness*. We are now concerned only with the former.

The first act of knowing "is a judgment free from all reflection, an affirmation without any mixture of negation, an immediate intuition, the legitimate child of the natural energy" of the mind. The second act of knowing is the formation of concepts and judging by means of concepts (thought proper)—an act of the understanding or discursive faculty, "in which we encounter doubt, sophism, and error."—COUSIN: "True, Beautiful, and Good," pp. 69, 70. "Hist. of Philos.," Vol. ii, pp. 337, 343, 363.

"The *psychological* must not be confounded with the *logical* judgment. The first is the judgment of a relation between the conscious subject and the object of consciousness; the latter is the judgment of a relation which two objects of thought bear to each other."—MANSEL: "Prolegomena," pp. 63, 64.

"I apply the word judgment to every determination of the mind concerning what is true or false. Many of these determinations are simple primitive beliefs accompanying the exercise of all our faculties—judgments of nature, the spontaneous product of the intelligence."—REID: "Intell. Powers," ch. i, 34.

McCOSH: "Intuition," p. 33.

PRIMITIVE JUDGMENT, A SYNTHESIS OF SIMPLE APPREHENSIONS. It may be laid down as a general canon of Psychology that the unity of consciousness is a *Judgment*, or in other words, every act of consciousness is an affirmation, and involves the intuition or mental vision of some *relation* which is the basis of the unity of the cognitive act. Thus, for example, the affirm-

ation "This is here," or "That is there," involves the intuition of spatial relations, that is, of coëxistent positions, or space. Again, the affirmative, "This substance is hard," involves the intuition of the relation of inherence, that is, that the quality of hardness inheres in the substance. Or again, the affirmation "This object has been moved or changed," involves the intuition of the relation of causality, the motion or change must have a cause. Consequently, with reference to primary and spontaneous consciousness, as distinguished from secondary and reflex consciousness, it is most appropriate and correct to describe it as "*a synthesis of simple apprehensions*" under necessary relations—a natural, spontaneous, primitive Judgment, free from all reflection and all negation.

"The apprehension of the manifold elements given in presentation, and the combination of them into one whole is the synthesis of apprehensions."—KANT. "By the word *synthesis*, in its most general signification, I understand the process of joining different representations [presentations] to each other, and of comprehending their diversity under one cognition [notion] . . . a blind, but indispensable function of the soul, without which we should have no cognition whatever, but of the workings of which we are seldom even conscious."—KANT: "Critique of Pure Reason," p. 62.

JUDGMENT, THE FACULTY OF RELATIONS. "If we really know the objective relations of things we must have some faculty of *pure, immediate cognition of relations*, because a relation is not a sensation. "The discernment of relation is in no case a work of *sense*."—MANSEL.

"A relation is not a passion, nor the cause of a passion . . . it is an intellectual, not a sensitive cognition."—HAMILTON: "Philos.," p. 381.

"We have an intuition—a mental vision or perception of relation."—LEWIS: "Problems," etc., p. 346.

(II) RELATIONS UNDER WHICH THE INDIVISIBLE EGO UNITES PERCEPTS AND IDEAS INTO FIRST NOTIONS OR PRIMITIVE COGNITIONS. 1. The first and most fundamental relation under which, or by which, the mind unites percepts and ideas is that of RECIPROCITY (—mutual contrast and mutual implication). Every psychical phenomenon is the product of two factors, subject and object, and these are known in correlation and contrast.

2. The next relation under which the mind unites percepts and ideas is that of NUMBER (numerical relations). "In the knowledge of existences external to ourselves we first affirm a *plurality* of animated existences."—UEBERWEG: "Logic," p. 92.

3. The third relation under which the mind unites percepts and ideas is TIME (succession of changes). "Time is manifested in the form of a *relation* of successive modes of consciousness" in the one permanent subject.—MANSEL: "Ency. Britt." xiv, p. 562. "Time is the succession of different states in the same enduring existence."—CALDERWOOD: "Philos. of the Infinite," p. 311. "Time is the order (relation) of the succession of phenomena."—LEIBNITZ. Time is the measure of duration, or duration measured by rhythmic motion, or change, or succession. "Succession presupposes duration."—ROYAR-COLLARD. "Time is the concept of a certain correlation of existence."—HAMILTON: "Philos.," p. 472.

4. The fourth relation under which the mind unites percepts and ideas is that of SPACE (co-existent positions). "Space is the being, the-one-outside-the-other, of existence."—SCHLEIRMACHER. "Space is the order (relation) of co-existent phenomena."—LEIBNITZ. "The relation of things to each other—their juxtaposition."—LOTZE. "It is the concept of a certain correlation of existence."—HAMILTON: "Philos.," p. 473. "Space is the abstract of co-existent positions, its concretes are bodies in the various relations of position, but in our abstractions we drop the bodies and retain only the relations of position; although a moment's consideration suffices to show that were there *no* bodies there would be *no* positions of bodies, consequently *no* relations of co-existent positions—in a word, *no* space."—LEWIS: "Prob. of Life and Mind," vol. ii, p. 433.

5. The fifth relation is that of CAUSALITY (relation of change to power or force). The causal connection between volition and its actual accomplishment, and the necessary interpretation of natural changes and effects by the same correlation.

6. The sixth relation is that of INHERENCE (inherence and subsistence). Every quality inheres in or belongs to a subject. All qualities and powers inhere in a substance or substratum. "The relation of what inheres to what exists is recognized in the relation of individual perception, feeling, or volition to the totality (identity) of our existence, or to our Ego."—UEBERWEG: "Logic," p. 221.

7. The seventh relation is that of INTENTIONALITY (adaptation of means to ends). We make effort or put forth exertion with the intention of fulfilling an end; and we make a collocation and arrangement of matter or material things in or

der to accomplish a purpose. Whenever we see such effort or arrangement in art or nature, we necessarily infer design.

8. The eighth relation is that of POLAR OPPOSITION (necessary reciprocity or logical opposites). Correlatives are known together, and only together—"the same indivisible consciousness is conversant about both terms of the relation of knowledge."—HAMILTON. Finite—Infinite; Conditioned—Unconditioned; Unity—Plurality; Identity—Diversity; these are necessary correlates in polar opposition.

Necessary truths "are of a *dual* character, taking the form of a magnet with *two poles*."—TYNDALL. "The two poles of a magnet are opposed as *implying* each other; neither pole can be isolated, and if the magnet is broken in two, each part presents the two poles."—MURPHY.

8. The ninth relation is that of OBLIGATION OR DUTY. The relation of personality to personality is one of reciprocal obligations. The person has natural and inalienable rights, and rights are the exact measure of duties. Dependence, and subjection to the Absolute Personality involves obligation.

NOTE.—"The mathematical relations (number, time, space and equality) are common to the outer and the inner world, and here we may look for the complete correspondence between our conceptions and the objects which excite them."—HELMHOLTZ: "Popular Lectures," pp. 315, 316. The metaphysical relations (inherence, causality, intentionality and reciprocity) belong immediately to the inner world of cognition and thought, and, on the authority of reason, are applied, as necessary data, to the interpretation of the outer world of sensible phenomena.

SUBJECT	RELATION	OBJECT
Self as an animated extended organism. (The psychological Ego)	RECIPROCALITY	Not-self as extended, visible, etc., affecting the organism.
Self as a UNIT—as single.	NUMBER	Not-self as distinct and plural.
Self as IDENTICAL	TIME	Not-self as diverse and successive.
Self as having <i>locomotive energy</i> —as changing position.	SPACE	Not-self as having place, position, etc.
Self as a POWER—as making effort	CAUSALITY	Not-self as moved and changed.
Self as a permanent SUBJECT.	INHERENCE	Not-self as the fleeting, changeful phenomena.
Self as a LAW—as having a purpose.	INTENTIONALITY	Not-self as subordinated to a purpose.
Self as dependent and conditioned.	POLAR OPPOSITION	Not-self as an Infinite Being, self-existent and unconditioned, who conditions all.
Self as a PERSON, as free and yet under LAW.	DUTY	Not-self as an Absolute Personality, imposing Law, and holding to account.

(III.) ORDER IN WHICH—PROCESS BY WHICH PERCEPTS AND IDEAS ARE COMBINED AND COÖRDINATED SO AS TO CONSTITUTE FIRST NOTIONS.

1. The primitive, original percept of Self, (in the empirical not the metaphysical sense) that is, the *feeling* of Self as existent and as making effort (Self-hood and Self-activity), is the primary condition of all knowledge. Self-ness is a primordial and fundamental feeling or percept—"the being-for-or-to-self" (*fürsichsein*) without reference to what is not self, and the necessary *prius* to the contraposition of other objects. So also the feeling or percept of Self-activity is primordial and fundamental. "It is through this self-activity that we first attain to the notion or relation of time."

2. The commencement, the succession, or the change of spontaneous activities—innate impulses, feelings and acts, give the relation of *time*. "Time is manifested in the form of a relation of successive states in the one enduring Self."—MANSEL.

3. The coördination of the percepts of touch under the relations of time gives *superficial extension*, that is, the extension of our organism, "a certain length and breadth."—BROWN.

4. The combination of the percepts of touch and the muscular sense, under the relations of time, gives *trinal extension*, "a certain length, breadth, and depth."—MUELLER.

5. The combination of the percepts of touch, of muscular sense, and the inner sense of effort, under the relation of reciprocity (action and reaction) gives *externality* or *outness*—a not-self as opposed to self. "The restrain laid upon our impulses [our activities] is the foundation of our intuition of body."—FORT-LAGE.

"The knowledge of the external world depends not on the relation which the world stands to our sensations, but on that in which it stands to our *volitions*."—MANSEL.

6. In the intuition of existences external to ourselves we first affirm a *plurality* of animated existences, and attain the relation of *number*.—(UEBERWEG.)

7. The combination of the percepts of touch, sight, muscular sense, and locomotive energy, under relations of number, gives co-existent positions, distance, and direction, that is *space*—"the circumambient field."—LOTZE.

8. The combination of the percepts of touch, muscular sense, and the inner sense of effort in varying degrees of inten-

sity, under relations of time and space, gives the *statico-dynamical* (secundo-primary) *qualities of bodies*, as e. g., hard, soft; solid, fluid; rough, smooth; tough, brittle; elastic, inelastic; etc.

9. The combination of the percepts of the "five senses" and the inner sense of effort with the idea of force, under the relation of causality, gives the *dynamical* (secondary) *properties* of matter.

10. The combination of the percepts of inner sense with the idea of a subject or substance having conscious power, under the relation of inherence, gives the idea of *absolute reality* (spirit).

11. The combination of the percepts of outer sense with the idea of substance, under the relation of inherence, gives *external reality* (matter).

12. The combination of the percepts of external sense (dispositions and collocations of matter) and the inner sense of effort, with the idea of end or function, under relations of intentionality, gives the notion of *order, adaptation, design* in the universe.

13. The combination of the sense of limitation and dependence with the idea of self-existent, absolute Being, under the relation of polarity, gives the notion of *primal origination* or creation *de novo*.

14. The combination of the sense of freedom, with the idea of moral law, under the relation of duty, gives the notion of *responsibility*, and of a *moral personality* to whom we are accountable.

(iv.) PRIMITIVE PSYCHOLOGICAL JUDGMENTS (Egoistic, Non-egoistic, Theistic, and Ethical).

1. *Egoistic Judgments*. "I exist, I am;" "I think, feel, and determine;" "I am dependent and finite;" "I am free" (with moral liberty), "I am immortal."

2. *Non-egoistic Judgments*. "The outer world is a reality,"—"is an effect, and must have a cause,"—"is a cosmos (harmony, orderly whole), and must be the product of Mind,"—"is a correlated whole of mutual adaptations, and must be designed" (must be the product of thought).

3. *Theistic Judgments*. "God exists"—"is self-existent"—"has always existed"—"is the Cause of all other existence"—and "is the moral governor of the world."

4. *Ethical Judgments*. "Free volitions are morally right or wrong;" "I ought to will the right;" "I am responsible for my voluntary acts;" "The good will be rewarded; vice will be punished."

DIVISION I. PSYCHOLOGY.

PART I.

INTELLECTUAL PHILOSOPHY.

(B.) DYNAMICS.

II.

REPRESENTATIVE CONSCIOUSNESS.

<div> <div>INSEPARABLE ASSOCIATION, or Cohesion of Intuitions—PRESENTATIVE—REPRESENTATION,</div> <div>or Simple Suggestion.</div> </div>		
MEMORY	<div> <div>SPONTANEOUS SUGGESTION, or Association of Notions—SPONTANEOUS—REPRESENTATION,</div> <div>or Relative Suggestion, not Inseparable.</div> </div>	
	<div> <div> <div> <div> <div>OF FORM—Representation—proper</div> <div> <div> <div>MEMORY PROPER</div> <div>OF AFFECTION—Reproduction</div> <div>OF RELATION—Recollection</div> </div> </div> </div> <div> <div>IMAGE=Imagel knowledge.</div> <div>FEELING=Pathemathical knowledge.</div> <div>SYMBOL=Symbolical knowledge.</div> </div> </div> </div> </div>	
IMAGINATION—Recombination		<div> <div> <div>for Amusement or Embellishment.</div> <div>FANCY.</div> </div> </div>
		<div> <div> <div>Voluntary, ARTISTIC</div> <div> <div>for Improvement or Instruction</div> <div> <div>POETIC.</div> <div>EMPHATIC.</div> <div>SCIENTIFIC.</div> <div>ETHICAL.</div> <div>RELIGIOUS.</div> </div> </div> </div> </div>
		<div> <div> <div> <div>wakeful</div> <div>sleep, natural</div> <div>abnormal</div> </div> <div> <div>Involuntary, FANTASTIC</div> <div> <div>HALLUCINATION.</div> <div>SOMNAMBULISM.</div> <div>INSANITY.</div> </div> </div> </div> </div>

REPRESENTATION IN GENERAL.

RE—back, again; PRÆSENS—present—to make again present in consciousness what has before been immediately known. MEMORY ($\mu\nu\eta\mu\eta$ from $\mu\nu\delta\omicron\mu\alpha\iota$ —to court, solicit)—the recalling or bringing back into consciousness a previous intuition or cognition (Remembrance, Reproduction, Recollection).

1. The fundamental condition of all reproduction or representation is RETENTION, conservation, or persistence of mental energy.

2. Another fundamental principle is that all Representation must be based upon presentation.

MEMORY.

(I.) PRESENTATIVE—REPRESENTATION.—“Inseparable Association,” or Cohesion of Intuitions. The simple association of percepts of sense. “When two phenomena [percepts of sense] have been very often experienced in conjunction, and have not in any instance occurred separately, there is produced an *inseparable association*,” so that when one is again presented the other is necessarily represented.

Note.—This is called (by Mansel, Porter, and McCosh) “Acquired Perception,” but, inasmuch as all presentation is immediate, or intuitive, the term “acquired” is misleading. If by “acquired” is meant “inferred” then the knowledge is not presentative; if by “acquired” is meant “gained,” “obtained” as distinct from innate, then all our perceptions are “acquired,” and the distinction is without a difference. “The examination of our acquired perceptions [?] should in strict accuracy be undertaken in connection with Representative, not with Presentative Consciousness. They are not properly *given* in the sensitive act to which they are supposed to belong, but *inferred* [?] . . . according to a law of association, from the presence of something else.”—MANSEL: “Ency. Brit.,” xiv, 572. We may properly ask whether “association” is a case of inference at all. We should say not.

1. *Presentations to Smell* (percepts of smell), with which is inseparably associated the representation of percepts of sight and touch, and the complex percept of direction.

I go into a darkened room and perceive a peculiar fragrance. I know and say there is a rose in the room, though I cannot see or handle it. By means of the odor I am directed to the place where the flower is placed, and I grasp it with the hand. (PORTER.) I have previously seen and handled the rose at the time of inhaling its fragrance, and all these percepts have become inseparably associated in my mind.

2. *Presentations to Hearing* (percepts of sound) with which is inseparably associated the representation of percepts of sight and touch, and the complex percepts of distance and direction.

I hear a sound and I know it is a piano, a guitar, a human voice, the voice of my intimate friend ; I know also the direction from which it comes, and can judge from how great distance. A man strikes with a hammer upon the head of a barrel, and knows in an instant whether it is full or empty. We have previously heard, perhaps produced, some of the sounds, and the percepts of sight and touch are now associated so as to be inseparable.

3. *Presentations to Sight* (percepts of vision) with which is associated the representation of percepts of touch, taste, the muscular sense, and the complex percepts of distance, magnitude, etc.

When we look at a sphere we see [only a disc on which the transitions of color, or light and shade pass so finely into each other that we know, if we were to grasp it with the hand, we would feel it to be spherical in form. I see an orange at a distance, this, as an object of visual perception, is simply a rounded yellow *disc* within the eye, or in close proximity to the eye ; but past experience has lead me to know what are the tactual and muscular sensations usually associated with the sight impressions—how it is a *spherical* body with a somewhat rough surface, and at a certain distance from the eye. Then I have learned also by experience that these impressions are usually associated with a certain *odor* and a certain *taste*, a certain degree of *succulence*, and certain internal optical characteristics. A combination of any of these may go to form our notion of the orange, and may flash into consciousness on the presentation of the object simply to the visual sense.—(BASTIAN.)

(II.) SPONTANEOUS REPRESENTATION. “ Association of Notions.” Relative suggestion of incidentally associated modes of consciousness. Individual notions, concepts, and feelings, which have often been presented in consciousness together, or in groups, become so conjoined that, when one is presented, it *suggests* or readily calls up the whole group, without any effort of will on our part.

See ABERCROMBIE: “Intell. Powers,” p. 103. BROWN: “Philos.,” vol. i, p. 337. HOBBS: “Leviathan,” part i, ch. 3. HAMILTON: “Metaphysics,” pp. 431–441.

(III.) VOLUNTARY REPRESENTATION or Memory-proper (Reminiscence, Reproduction, Recollection),—the power by which we bring back into consciousness, remember, reproduce, recall a past mental state or act.

1. *Representation-proper* (Form), Imageal Knowledge. The consciousness of an image in the mind which represents or resembles a former object of intuition. It is thus, at the same time, presentative and representative. The cognition is presentative of the *image* which has its own distinct existence in consciousness. And the consciousness is representative of the *object* once intuitively known, which the image resembles, and such resemblance is possible only on the condition that the image be, like the object, *individual*.

Note.—The power of representation proper is dependant on organic conditions. When an organ of sense, and the corresponding parts of the brain disappear, the definite power of representation disappears.—FEUCHTERSLEBEN: "Med. Psycho.," p. 120. HAMILTON: "Metaph.," p. 461.

2. *Reproduction* (Feeling) Pathemathical knowledge. The reproduction of a past mental state, that is, a similar state of feeling to one previously experienced, is necessarily indirect and mediate, and depends upon the power to represent the past objects or events with which the feeling was associated. The feelings are not under the direct control of the will, and consequently we can awaken emotion only by the representation of the causes or occasions of emotion; and we can control or change the state of the feelings only by directing the attention to new objects, and, as far as possible, placing ourselves in different surroundings.

3. *Recollection* (Symbol) Symbolical knowledge. Recollection is distinguished from representation-proper by the fact that the latter deals with images of individual objects, while the former deals with the *relations* of objects, and employs these relations as the means of recalling the past. These relations are (1) Co-existence or immediate succession in time. (2) Contiguity or proximity in place. (3) Cause and effect. (4) Similarity or antithesis. (5) Sign (phonetic or ideographic) and thing signified. (6) Affinity or logical connection in thought.

IMAGINATION.

ELABORATED RE-REPRESENTATION. Recombination, artistic or fantastic. IMAGINATION is the mind working upon the materials supplied by memory. It dissolves in order to recreate. Not satisfied with the order prescribed by nature or

suggested by accident, it selects parts of the objects of memory to form a new whole more pleasing, more awful, or more terrible than has ever been presented in the ordinary course of things. It struggles to *idealize* and *unify*, and gives birth to a system of *symbols*.

Memory retains and recalls the past in the form it was previously presented to the mind. Fancy is a mode of memory emancipated from the natural order of time and space; and Imagination dissolves, and recombines the past in new shapes, new creations or compositions. Fancy arranges the images of memory in new groups and new relations without modifying the images themselves. Imagination modifies images or conceptions by recombining the parts of different ones so as "to form new wholes of our own creation."—STEWART.

"To imagine is to symbolize—to *idealize*—to cloth intelligible and abstract truths in forms of sensible nature, representing the invisible by the visible, the infinite by the finite."—FLEMING. "Imagination is the reconciling and mediating power which incorporates the [ideas of the] reason in the images of the sense, and organizes, as it were, the flux of the senses by the permanence and self-circling energy of the reason."—COLERIDGE.

Beneath this magic circle of the imagination lies the material world, above it the ideas of the intelligible world, and within it the world of *ideals*, which are ideas of reason symbolized in the images of the world of sense. The great "analyst of human nature" has well described imagination :

"Lovers and madmen have such seething brains,
Such shaping *fantasies* that apprehend
More than cool reason ever comprehends;
The lunatic, the lover, and the poet
Are of imagination all compact :
One sees more devils than vast hell can hold :
That is the madman ; the lover, all as frantic
Sees Helen's beauty in a brow of Egypt ;
The poet's eye in a fine frenzy rolling
Doth glance from heaven to earth, from earth to heaven ;
And, as *imagination* bodies forth
The forms of things unknown, the poet's pen
Turns them to shape, and gives to airy nothing
A local habitation and a name."

Midsummer-Night's Dream, Act v, Scene 1.

Substitute for "airy nothing" "the abstractions of the understanding, or the ideas of the reason" and the above is a philosophic description of the imagination.

The imagination may be controlled and consciously guided by certain ideas and laws, or it may be uncontrolled, lawless and abnormal. In the first case it is *artistic*, in the second it is *fantastic*.

(I) VOLUNTARY, ARTISTIC IMAGINATION.

1. FANCY (artistic association without previous analysis.)
Fancy is the habit of rapid association, which supplies the orator and the poet with a number of resembling or analogous images for illustrating or embellishing his subject, and is the source of metaphorical *language*. The fancy groups together images, which have no natural or moral connection, by means of some accidental connection or resemblance, as in the well-known passage from "Hudibras :"

"The sun had long since in the lap
Of Thetis taken out his nap
And like a lobster boil'd, the morn
From black to red began to turn."

The following passage from Wordsworth's "White Doe of Rylstone" is a good example of Fancy as distinguished from poetic imagination :

"White she is as the lily of June
And beauteous as the silver moon
When out of sight the clouds are driven
And she is left alone in heaven ;
Or like a ship, some gentle day,
In sunshine sailing far away—
A glittering ship that hath the plain
Of ocean for its wide domain,"

2. POETICAL IMAGINATION (analysis and recombination) is a higher form of imagination than fancy. In addition to the single images and analogies which are supplied by the fancy, the Poetic Imagination decomposes and modifies single images and combines the parts into a more complex scene, and so unifies and identifies the whole as to represent abstract conceptions, spiritual sentiments and rational ideas, and thus excite the noblest emotions of our nature. "Fancy does not require that the materials she makes use of should be susceptible of change in their constitution, from her touch, and where they admit of modification, it is enough for her purpose, if it be slight and evanescent. Directly the reverse of this are the desires and demands of the poetic imagination. She recoils from everything but the plastic, the pliant, and the indefinite."—WORDSWORTH.

The finest illustration of the power of imagination is given by Wordsworth himself in the "Wanderer," (vol. vi, pp. 15, 19), commencing with the lines :

"So the foundations of his mind were laid,
In such communion, not from terror free,
While yet a child, and long before his time,
Had he perceived *the presence and the power*
Of greatness ; and deep feelings had impressed
So vividly great objects, that they lay
Upon his mind like substances, whose presence
Perplexed the bodily sense," etc.

"In the after-day
Of boyhood, many an hour in cares forlorn
And 'mid the hollow depth of naked crags
He sat, and even in their fixed lineaments,
Or from the power of a peculiar eye,
Or by creative feeling overborne,
Or by predominance of thought oppressed,
Even in their fixed and steady lineaments
He traced an ebbing and a flowing mind, etc.

NOTE.—However critics may differ as to the definition of Poetry all are agreed that in prose compositions we meet passages to which we feel that the term poetry could be properly applied. When Byron said that few poems of his day were half poetry he evidently meant by poetry something distinct from rhythm and rhyme. The poetry is in the imagery, the scenic representation, the idealization, not in the measure or the rhyme.

3. EMBLATIC IMAGINATION ("Esemplastic power."—COLERIDGE). The power which moulds and fashions the materials of sense so as to symbolize the ideals in the mind of the artist and form a language of symbols. "In painting and sculpture we have languages which do not employ analysis [so much as synthesis]. A painting or a statue would be called by some a *synthesis*, composition, sign or symbol, from the notion that in it all the elements and qualities of the object which would have been mentioned separately in a description, are thrown together and represented at one view. The statue of the Dying Gladiator gives at one glance all the principal qualities so finely analyzed by the following description, which, however, includes also the poet's reflections upon, and inferences from the qualities he observes : the *objective* impression is described, but with a development of the *subjective* condition into which it throws the spectator," and which subjective feeling it is presumed the sculptor designed to excite :

"I see before me the Gladiator lie:
He leans upon his hand—his manly brow
Consents to death but conquers agony,
And his drooping head sinks gradually low—

And through his side the last drops, ebbing slow
From the red gash, fall heavy, one by one
Like the first of a thunder-sthower; and now
The arena swims around him—he is gone,

Ere ceased the inhuman shout which hailed the wretch who won.

“He heard it, but he heeded not—his eyes
Were with his heart, and that was far away;
He recked not at the life he lost, nor prize,
But where his rude hut by the Danube lay:
There were his young barbarians all at play,
There was their Dacian mother—he, their sire,
Butchered to make a Roman holiday!

All this rushed with his blood—shall he expire
And unavenged? Arise! ye Goths, and glut your ire!”

Byron.

4. SCIENTIFIC IMAGINATION. That power of the imagination “bounded and conditioned by coöperant reason” by which, from our present verified knowledge of forms of energy, causal relations and laws, we are able, reasoning from analogy, to construct hypotheses which shall aid us in the interpretation of more obscure phenomena, and thus “bind all the parts of Nature in one organic whole.”

“Physical science, more than anything else besides, teaches us the actual value and right use, of the imagination . . . Properly controlled and directed by experience and reflection, it becomes the *instrument of discovery* in science: without it, Newton would never have invented fluxions, nor Davy decomposed the earths and alkalies, nor would Columbus have found another continent.”—SIR B. BRODIE.

See TYNDALL “On the Scientific Use of the Imagination.”

5. ETHICAL IMAGINATION. That power of imagination by which the mind is able to form for itself a mental *picture* or representation of the relations of conscience, and to evoke *ideals* of moral perfection and excellence which shall present themselves to free-will as models for imitation, and the highest aims of personality.”—MARTENSEN: “Ethics,” pp. 2-3.

6. RELIGIOUS IMAGINATION. That form of imagination by which we are able to represent to ourselves the relations of God to nature and man. “When we denominate not only the reason but also the Imagination as the organ of religious perceptivity; when we say that without our fancy no one can get a lively conception of God, the assertion may to many sound strange. But experience shows that no religion has ever assumed an important

historical character without developing a comprehensive *ideal* view of the universe, an imaginative view by which the invisible blends with the visible; whether the blending has the significance of a mere myth, or symbol or connects itself with a divine revelation.—MARTENSEN: "Dogmatics," p. 9.

(II) INVOLUNTARY, FANTASTIC IMAGINATION.

1. REVERIE. Here the succession of mental images is automatic. The mind abandons itself without choice of subjects, without control over the mental train, to the involuntary associations of the imagination. "Reverie and castle-building is a kind of waking dream, and does not differ from dreaming, except by the consciousness which accompanies it." "There is a pleasure attached to its illusions which renders it seductive and dangerous. The mind, by indulging in this disposition, becomes enervated; it acquires the habit of a pleasing idleness, loses its activity, and at length even the power and desire of action."—WINSLOW: "On the Brain and Mind," p. 277.

2. DREAMING. Dreaming is nothing more than the occupation of the mind in sleep with the pictorial world of the imagination. "As the closed senses afford it no materials, the mind, *ever active*, must make use of the stores which memory supplies, but as its motor influence is organically suspended, it cannot independently dispose of its store. Thence arises a condition in which the mind looks, as it were, on the play of the images within itself."—FEUCHTERSLEBEN: "Med. Psycho.," p. 163.

In dreaming, phases of intellectual vigor and states of mental acuteness are developed which were not normal manifestations during the waking hours. The most exquisite creations of poetic fancy have been engendered under these circumstances. "The dullest wight is at times a Shakspeare in his dreams." During the hours of sleep "the intellect has with rapidity solved subtle questions, which had puzzled and perplexed the mind when in full and unfettered exercise of its waking faculties. Difficult mathematical problems; knotty and disputed questions in the science of morals; abstruse points of philosophy, have (according to accredited testimony) found the right solution during the solemn darkness of night, and periods of profoundest sleep."—WINSLOW: "Obscure Diseases of the Brain," etc., p. 47.

Condorcet finished in sleep a difficult calculation which had puzzled him all the previous day. Condillac says, that when en-

gaged in his "*Cours d' Etude*" he frequently developed and finished in his dreams a subject which he had broken off before retiring to rest. Coleridge's poetical fragment "Kubla Khan" was composed during sleep. Sir Isaac Newton is alleged to have solved a subtle mathematical problem whilst sleeping. And it is said that we owe the famous sonata, by Tartini, called the "Devil's Sonata," to a dream in which Tartini heard the devil execute it on the violin.

See DEBOISMONT "On Dreams, Hallucinations," etc., pp 202, 204. WINSLOW: "Brain and Mind," pp. 46, 53. ABERCROMBIE: "Intellectual Powers," pp. 214, 236. CARPENTER: "Mental Physio.," pp. 584-591.

NOTE.—The mind is always active even when the senses are torpid. That we, in fact, never sleep without dreaming is placed beyond doubt, not so much from reasoning *à priori* on the unceasing activity of the mind as from the observation that when we are suddenly awakened we are conscious of an image just vanishing. If it were not so sleep would be death.—FEUCHTERSLEBEN: "Med. Psy.," pp. 164-165. HAMILTON: "Metaphysics," pp. 224-234.

3. SOMNAMBULISM. Dreaming carried to a pathological extent furnishes the phenomena of *sleep-walking*. The controlling or directing power of the will seems entirely suspended. But the Somnambulist differs from the ordinary dreamer in possessing such a control over his nervo-muscular apparatus as to be able to execute, or at any rate to attempt whatever it may be in his mind to do; while some of the inlets to sensation ordinarily remain open, so that the Somnambulist may *hear*, though he does not *see* or *feel*, or may *feel* while he does not *see* or *hear*. The phenomena of Somnambulism present a curious diversity, which in some respects correspond to the difference between abstraction and reverie. "A mathematician will work out a difficult problem; an Orator will make a most effective speech; a Preacher will address an imaginary congregation with such directness and pathos as deeply to move his real auditors; a Musician will draw forth most enchanting harmonies from his accustomed instrument; a Poet will improvise a torrent of verses; a mimic will keep the spectators in a roar of laughter at the drollness of his imitations. The reasoning processes may be carried on with remarkable accuracy and clearness, so that the conclusion may be quite sound, if the data have been correct and adequate."—CARPENTER: "Mental Physio.," p. 591-592.

FEUCHTERSLEBEN: "Med. Psycho.," p. 201-205. DEBOISMONT: "On Hallucination," pp. 233-259.

Induced Somnambulism, Clairvoyance, Hypnotism. The method of producing artificial somnambulism, consists in "the maintenance of a fixed gaze, for several minutes consecutively, on a bright object placed somewhat above and in front of the eyes at so short a distance that the convergence of their axes upon it is accompanied with a sense of effort, even amounting to pain." This state of somnambulism arising without previous sleep advances through several stages. In the second stage the sleep becomes more profound, the patients become absorbed in self, and in their world of imagination live a distinct, and, as it were, a new life, with some perception of the external world which is not obtained through the "five senses." In the third stage the patients manifest remarkable sympathies and antipathies, ask and answer questions, foretell the time of waking, describe the interior of their own bodies, prescribe remedies for their own ailments, enter "en rapport" with persons who are in sympathy with them, and are then as sensible of their condition as of their own, display exalted powers, compose poems, have visions, see things at a distance through stone walls and with closed eyes, and speak in refined language, frequently in a language with which they are not familiar, and have forgotten all when they awake.

See FEUCHTERSLEBEN: "Med. Psycho.," pp. 205, 211. DE BOISMONT: "On Hallucination," etc., pp. 233, 259. CARPENTER: "Mental Physio.," pp. 601-610. TUKE: "Influence of the Mind on the Body," pp. 9, 31, 43, 402-407.

Animal Magnetism. Somnambulism induced by a "supposed magnetic influence passing from A to B." It is contended by Dr. Carpenter, Braid, Tuke and others that no such influence exists, and that all the cases narrated by Drs. Elliotson, Esdaile, Mr. Towshend, and others are explained by the psycho-physical power (imagination and expectancy) of the subject. There are facts, however, which are not adequately explained on the hypothesis of a purely subjective cause. "The magnetized person can not only be acted upon, but he can without his knowledge, be thrown into and aroused from a complete somnambulic condition, when the operator is out of sight, at a certain distance from him, and separated by doors."—"REPORT to the French Academy of Medicine."

4. HALLUCINATION (Morbid action of the Imagination on the Senses) co-existing with soundness of mind. Hallucination is the mental state of a person who sees what no other person

sees, and hears what no other person hears, but he is still able to recognize his state as a creation of the imagination and may or may not correct it by the understanding. The ideals of the imagination are converted into material signs, or sensible images and projected into space. DE BOISMONT: "Hallucination," etc., ch. ii, pp. 40, 75.

Note.—Hallucination must be distinguished from Illusion. Illusion is a false or incorrect apprehension of real sensations—error of the judgment in the interpretation of sensations, altered perception which may be corrected by a further inspection of the external object and the comparison of the percepts of two or more senses. Hallucination is a pure creation of the imagination without any immediate external occasion or excitant, and cannot be capable of verification by an appeal to the other senses. Errors of judgment, however great, are not insanity.

5. INSANITY (Psychopathy) is disease of the empirical personality, or derangement of the reciprocal relation between the body and the soul. "A certain proportion in the relation between mind and body is called health, and a deviation from it (in any marked degree) is called disease. This proportion is by no means a complete equilibrium, but the perfect adaptation of the body, without injury of its integrity, to the purposes of the mind."—(FEUCHTERSLEBEN, p. 83.)

"We are not ourselves
When nature, being oppressed, commands the mind
To suffer with the body."—LEAR.

The two series of physiological and psychical phenomena—sensation and locomotion the one hand and reason and will on the other hand come together on the neutral ground of the imagination. "It is here where the psycho-physical relation vanishes in the last sensible breath which diffuses itself, imparting life to the regions above and below—to the intellectual and material world."—FEUCHTERSLEBEN.

The morbid action of the imagination on the senses is the root of all the so-called mental disorders. "When we attempt to follow the course and issue of a morbid action of the fancy (or imagination) we immediately enter upon the confines of those conditions which we usually call, in a more restricted sense, *mental derangement, psychoses, psychopathies*, etc. The idea of confounding the internal with the external world is in itself the idea of a derangement of the relation of the mind to the body, and experience sufficiently confirms that a disordered imagination precedes the commencement of insanity, or rather it is the

resting place in psychical life for those anomolies in it which belong to the physician. The operations of body and mind meet in the fancy (or imagination) as in a *punctum saliens*; it is only through the imagination that they act and react together. *Thought without an image cannot become diseased; nor can sensation without imagination become psychically diseased.* Below imagination we find affections of the sensor and motor nerves which remain purely corporeal diseases so long as they do not encroach upon her domain; above imagination (fancy) we find affections of thought, feeling and will, which, though they may contradict the laws of the mind (as error and vice) are not disease in the strict sense of the word so long as they do not imply a confounding of the internal and external world; but this they do only through the imagination (fancy).”—FEUCHTERSLEBEN: “Med. Psycho.,” pp. 242, 243. When the sufferer cannot distinguish this disordered state, in which the internal and the external are confounded, from his proper self, he has become *insane*. Insanity may be said to exist in the following degrees:

1. *Fixed Delusion*—(Monomania). The assumption as *real* of a non-existing objectivity in particular.
2. *Fatuity*—(Folly). The assumption as *real* of a non-existing objectivity in general.
3. *Mania*—(Madness). The senseless endeavor to give objectivity to the impossible.
4. *Idiocy*—The absence of all correct relation to objectivity.

NOTE.—Errors of judgment, however great, are not insanity. “The higher power of the mind (reason—speculative and discursive) must therefore be excluded from medical psychology.” “The maladies of the spirit alone *in abstracto*, that is, error and sin, can be called diseases only *per analogon*. They cannot come within the jurisdiction of the physician, but of the teacher and the clergyman, who again are called physicians *per analogiam*.” —FEUCHTERSLEBEN.

The views presented above as to the nature of insanity, are confirmed by the fact that the most effectual remedies in the treatment of the insane are psychical remedies, especially those which act upon the imagination, as that is the immediate atrium to physical effects—the birth-place of the images which form the mind.

DIVISION I.
PSYCHOLOGY.

PART I.

INTELLECTUAL PHILOSOPHY.

(B.) DYNAMICS.

III.

REFLECTIVE (SYMBOLICAL) CONSCIOUSNESS.

UNDERSTANDING.

FIRST FORM of the Understanding	CONCEPTION—Comparative Abstraction.
SECOND FORM	PRÆDICATION—Logical Affirmation.
THIRD FORM	IDEATION—Immediate Abstraction.
FOURTH FORM	ILLATION—Logical Inference.
FIFTH FORM	INTEGRATION—Complete Unification.

UNDERSTANDING.—COLERIDGE. *Verstand*.—KANT. Discursive Reason.—WHEWELL. Elaborative Faculty.—HAMILTON. *Dianoetic Faculty*.—ARISTOTLE.

1. DEFINITION. The understanding is, in general, the Reflective Faculty, the faculty of THOUGHT-PROPER, which deals solely with *relations* (*ratiocination*—setting in relation). It is the whole of our intellectual nature in exercise in its discursive, reflective processes. Its function is to bring the multiplicity and diversity of presentation and representation (of spontaneous and representative consciousness) into the HIGHER UNITY OF REASON. The understanding deals with the relation of the particular to the general, and of the general to the universal;—the relation of the empirical to the rational, the fleeting to the perma-

nent, the phenomenal to the real, the finite to the infinite, the temporal to the eternal. **CONDITIONED EXISTENCE TO UNCONDITIONED BEING.**

"I use the word *understanding*, not for the noetic faculty, intellect proper, or place of principle, but for the dianoetic faculty in the widest sense, for the faculty of *relation* . . . and this is the meaning in which *Verstand* is now employed by the Germans."—HAMILTON: "Discussions," p. 12.

"The function of the speculative intellect, or the understanding is *thought*, or the mediate representation which consists in this, that a given manifold of representations is bound up into a higher unity."—KRUG: "Fund. Philos.," p. 35.

"There is one faculty in man by which he comprehends and embodies in his belief *first principles* which cannot be proved, which must be received on authority; there is another by which, when a new fact is laid before the mind, he can show that it is in conformity with some principle possessed before. One process resembles the collection of materials for building, the other their orderly arrangement. One is *intuitive*, the other is *logical*."—ARISTOTLE.

To UNDERSTAND anything is to apprehend it according to certain *general notions, ideas and laws*. *Under-stand-ing* is the cognition of a thing through the relations, essences, laws, and ideals which *stand under* a multiplicity of things or events and binds them together in a unity. Thus, "we understand a language when we apprehend what is said according to the established vocabulary and grammar (laws) of the language. We understand a machine when we perceive how its parts are related, and how they will work upon each other according to the laws of mechanics," and for what purpose it exists.—WHEWELL: "Elem. of Morality," vol. i, p. 31.

"We know (or understand) a thing if we are able to bring it, or any part of it, under more general ideas. We then say, not that we have a perception, but a conception. . . . The *facts* of nature are perceived by our senses, the *thoughts* of nature by our reason. When these are reflectively and consciously combined we understand."—MULLER: "Science of Lang.," p. 378.

SYMBOLICAL knowledge is a knowledge of the relations, essential attributes, and ideals under which a number of individual things are coincident; the relation, or the essence, or the ideal being taken as the prototype of all the individuals. A *symbol*, properly defined, is a sign of that which is essential and fundamental in the thing or object which it represents; it is an actual part chosen to represent the *whole*, either in content or extent. It is, therefore, not an arbitrary sign, but a real type. We must carefully distinguish between a metaphor (rhetorical) and a sym-

bol (logical); also between an arbitrary sign (a name, or an algebraic sign) and a real type.

“A symbol is characterized by a translucence of the species in the individual: of the universal in the general; above all, by the translucence of the eternal in or through the temporal. It always partakes of the *reality* which it renders intelligible, and while it enunciates the *whole*, abides itself as a living part in that unity of which it is representative.”—COLERIDGE: “Works,” vol. i, p. 437.

“Every interpenetration or *unity* of reason in nature which implies a coming action of reason on nature is organic, while every such unity which implies a past action is *symbolical*.”—SCHLEIRMACHER.

The special FUNCTION of the understanding (which is in reality the whole of our intellectual nature in action, in reflective or discursive processes) is to bring the multitude and diversity of spontaneous and representative consciousness into a higher unity. It is therefore mainly *synthetical*; but it analyses the concrete wholes of spontaneous consciousness in order that it may unite in a new whole more distinct, lucid, determined, and scientific. “It bestows on the cognitions which it elaborates the greatest possible *compass* (comprehension and extension)—the greatest possible *clearness* and *distinctness*—the greatest possible *certainty*, and the greatest possible *systematic order*,” and “from the necessity it has of thinking of everything as the result of some higher reason, it aims at the deduction of every object of cognition from a SIMPLE [ULTIMATE] PRINCIPLE.”—HAMILTON: “Metaph.,” pp. 620, 622.

In consciousness there may be distinguished three classes of cognitions :

INTUITIVE. (The sphere of Spontaneous Consciousness.)	I. The immediate and irrespective knowledge we have of an individual object, here and now present to the mind, as a complement of certain characteristics, inhering in a subject, produced by a cause, and existing for some end.
REPRESENTATIVE (The sphere of Representative Consciousness.)	II. The mediate knowledge we have of an individual object of past cognition reproduced by reminiscence, and now represented by a vicarious image or a similar feeling, or a representative sign (phonetic or ideographic.)
RELATIONAL. (The sphere of Reflective or Symbolical Consciousness.)	III. The relational or symbolical knowledge we have of groups or classes of objects which partake of a common <i>essence</i> (<i>essentia</i> —essential attributes) and stand in fundamental and mutual <i>relation</i> . The knowledge of objects as conformed to Law—that is to ideals and ends.

Spontaneous and Representative Consciousness present a multiplicity of individual objects and images. These are the rude material submitted to elaboration by a higher faculty (the understanding—reflective consciousness) which operates upon

them in obedience to certain Laws and in conformity to certain Ends.—HAMILTON: "Logic," p. 10.

THE UNDERSTANDING NOT AN INTUITIVE POWER. It is one of the most important canons of Philosophy that "*the Understanding has no power of intuition*," consequently nothing can be conceived that was not previously PERCEIVED (by sense or reason). "The act of thought cannot create its own object." All thought being mediate and relational, it requires to be based upon an immediate, and in a certain sort, absolute knowledge of the real objects and related terms, given in spontaneous consciousness.

"Reflection creates nothing, can create nothing; everything exists previous to reflection in the (spontaneous) consciousness, but everything pre-exists there as a confused and obscure totality; it is the work of reflection to illuminate what is obscure, to develop what is undeveloped." "Reflection is for consciousness what the microscope and the telescope are for the natural sight." These instruments do not *create* or change the objects, they concentrate attention upon them, they bring out their characteristics more clearly, they penetrate their constitution more thoroughly, and enable us to learn their inmost nature and laws more accurately.—COUSIN.

(II.) THE UNIFICATION OF OUR KNOWLEDGE (*the bringing of the multitude of perception into the unity of reason*) IS THE PROCESS OF INDUCTION.

INDUCTION (*inductio*—ἐπαγωγή—a bringing on, to, or in; a leading INTO) is the bringing into *unity* of individual notions (—THE ANALYTICO-SYNTHETIC METHOD).

The term "induction" should be restricted to this use; it denotes a *method*, which is both analytic and synthetic. Synthetic inference is often called "inductive inference," and analytic inference is called "deductive inference." But the use of the term "inductive" in connection with inference is confusing. Synthetic inference is only a part of the inductive method.

All scientific research (whether directed to nature or mind) presupposes an intellectual or mental initiative—a PRUDENS QUÆSTIO (—BACON)—a *forethoughtful query* which is the motive and guide of all inquiry—all observation and experiment. "All method presupposes a pre-cognition—a principle of unity with progression." If we ask, where is this pre-cognition,—this forethoughtful query, which gives unity to, and is the motive and guide of all research, to be found? The answer is, in the Pure Reason, in Intellectual Intuition, in the "*lumen siccum*," (BACON), of the Mind. In regard to each phenomenon, and in

regard to the totality of phenomena we call nature, it suggests the following questions :

1st. *Qualis*—of what kind? 2d. *Qua ratione (relatione)*—in what relation? 3d. *Quid est*—what is its essence? 4th. *A quo*—by what means or cause—*how* is it produced? 5th. *Propter quod—why*, for what reason or end is it produced?

1. The answer to the first question (*qualis*?) is reached by the method of *comparative abstraction* (analytic attention and synthesis)—the observation, scrutiny, testing by experiment, comparison, and classification (on the basis of resemblance) of individual facts or phenomena, in order to attain GENERAL NOTIONS (—CLASSES).

2. The answer to the second question (*qua ratione*?) is reached by the method of *generalization* (synthesis)—the intensive and extensive observation of the co-existences (relations in space) and successions (relations in time) of phenomena, in order to attain the knowledge of *uniformities* in nature or mind, that is, GENERAL LAWS.

3. The answer to the third question (*quid est*?) is reached by *immediate abstraction*, (analysis)—the decomposition or resolution of a real object, or a concrete notion into its *ultimate elements*, eliminating all that is variable, contingent, and individual, and disengaging the changeless, the necessary, the universal, and the essential, thus attaining to UNIVERSAL AND NECESSARY PRINCIPLES (—THE REAL ESSENCE AND THE NECESSARY CORRELATION.)

4. The answer to the fourth (*a quo*?) and the fifth question (*propter quod*?) is reached by the method of *illation*, that is, by an inference warranted by a universal and necessary principle (the principle of Sufficient Reason). From amid the varied antecedents and coëxistences, we select one unvarying *dynamical* antecedent—the POWER which does the work; and one *rational* antecedent—the PURPOSE for which the work is done, as distinct from the physical or psychical *conditions* (statical conditions) under which the *power* is distributed and applied, and the *end* is realized—SYNTHETIC AND ANALYTIC INFERENCE.

5. The climax of inquiry is reached by the method of *absolute integration*—the rational and necessary presupposition or pre-cognition of an Absolute First Principle from which the *law* according to which, the *power* by which, and the *end* for which

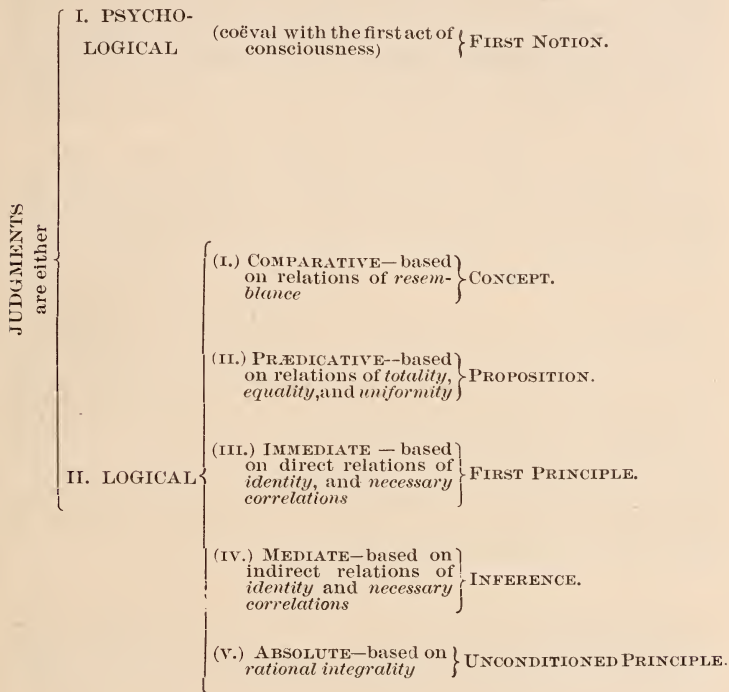
all things exist, are derived, are adequately explained—THE PRINCIPIUM PRINCIPIORUM (“*Ultimate of all Ultimates*”).

(III.) FORMS OF THE UNDERSTANDING, OR STAGES OF PROGRESSION IN THE UNIFICATION OF COGNITION. We have seen that the function of the Understanding or discursive Reason is to bring the multitude and diversity of spontaneous consciousness into the higher unity of thought and reason. Commencing with the relations which are nearest to *sense*, and most obvious to incipient reflection, it advances by successive and regular stages to those relations which are more abstract and nearest to *reason*, until it finally attains that Ultimate of all Ultimates in which *reason* and *being* are absolutely coincident and identical.

I. COMPARATIVE UNITY.	{ The first stage in this understanding progression is the union of a plurality of individual or singular notions in one general notion or <i>concept</i> , on the basis of certain relations of <i>resemblance</i> , (1) in quality, (2) in quantity, (3) in form, (4) in function—CONCEPTION.
II. LOGICAL UNITY.	{ The second step is the union of two concepts (as subject and predicate) in one <i>proposition</i> on the basis of certain relations—(1) of <i>totality</i> in extent and content, (2) of <i>equality</i> in ratios, (3) of uniformity in co-existence and succession—PRÆDICATION.
III. METAPHYSICAL UNITY.	{ The third step is the union of a concept and a necessary and universal idea of the reason in one <i>absolute first principle</i> on the basis of certain <i>correlations</i> —(1) of inherence, (2) of polar opposition, (3) of causality, (4) of intentionality, (5) of obligation—IDEATION.
IV. LOGICAL AND METAPHYSICAL UNITY.	{ The fourth step is the union of two logical propositions, or, more properly, of a logical proposition and a universal principle, which necessitates a third judgment, or conclusion, as a necessary consequence of the identity of their middle term, thus forming the <i>sylogism</i> —ILLATION OR INFERENCE.
V. ONTOLOGICAL UNITY.	{ The fifth step is the union of all absolute first principles in one Ultimate of all Ultimates (<i>principium principiorum</i>)—the unconditioned Being, self-existent, self-conditioned, and self-sufficient, the cause of all conditioned existence and of all relations - ABSOLUTE INTEGRATION.

(IV.) EACH FORM OF THE UNDERSTANDING IS A JUDGMENT FOUNDED ON RELATION. To judge (*ζῆναι*—*judicare*—to discern) is, in general, to recognize the RELATION in which two or more objects of thought stand to each other. “A Judgment is the consciousness of the objective validity of a subjective union of conceptions, whose forms are different from, but belong to each other. The judgment, in its various *forms* corresponds to and is the subjective copy of the various *relations*.”—(UEBERWEG: “Logic,” p. 187.) All understanding depends, therefore, upon “the recognition of relations,” and every act of thought-proper is finally resolved into a *judgment founded on relations*.

A Judgment which enlarges or extends our knowledge is a *unifying* act, an affirmation, and “all negation is only the repellent force of an affirmation.”—TRENDLENBERG.



The Judgments of the understanding are all *logical*. “The absolute Judgment is developed from the sum of all completed Judgments whose subject is the *orderly whole of existence*.”—UEBERWEG: “Logic,” p. 201.

Note.—There is an important difference between “all” and “the whole.” The first can never be ascertained as a standing quantity; the second, if comprehended by insight into its parts, remains forever *known*.

(V.) RELATIONS WHICH ARE THE BASES OF ALL LOGICAL JUDGMENTS. The most vital question in logic, or more properly in philosophy, is, What are the *fundamental relations* which underlie and determine our judgments in conception, predication, ideation, inference, or illation? What constitutes the

unity of thought? This is a deeply metaphysical question upon which logicians have scarcely entered.

The fundamental canon of a sound philosophy is that "*the relations of thought correspond with and are but reflexes of the actual relations of things*," and consequently every logical process presupposes some intuition or rational insight, by the reason, of real existence and real truth.

See PORTER: "Intell. Philos.," p. 451.

All *relation* (*ratio, quod*) supposes a *reason* (*ratio, cur*)—that is, a cause, a law, and an ideal; and to know by means of *relations* is to know by means of *reasons*; it is to reason (*ratiocinari*); it is *ratiocination*.

The fundamental relations of things can be cognized by thought, for the sole and only reason that they are the expression or manifestation of thought. The act of knowing, in so far as it is a representation in consciousness of the essential relations of things is "*an after thinking of the thoughts which the divine creative thinking has built into things*. In *action* the precedent thought determines what actually exists, but in *knowing* the actual existence, in itself conformable to reason, determines the human thought."—UEBERWEG: "Logic," p. 2.

There must be a SUFFICIENT (DETERMINANT) REASON why a thing exists, and why it is as it is, and not otherwise—there must be an efficient cause, an ideal or exemplar cause, and a final cause of each thing, and of the totality of all existing things. A Judgment, consequently, finds its sufficient reason only when the *logical* connection corresponds to the *real* or causal connection. The perfection of knowledge lies in this, that the ground of *formal* knowledge is coincident with the *real* ground.

The knowledge of the real interdependence of things *conformable to law* (—to rule—to reason) is reached as the knowledge of the inner constitution of things in general; and more especially as the individual existence is reached (THE ESSENCE) and the fundamental relations (THE RATIOS) are known.—UEBERWEG: "Logic," p. 281.

Thus the actual existence in nature of a *real conformability to Law*, that is, to the ideas of the Eternal Reason, is the ground of all known relations—even the relations of *resemblance*, (which

might be regarded as the most superficial of relations) inasmuch as all scientific classification finally reposes on homology (in structure) and analogy (in function). It is preëminently the ground of all relations of *totality* (identity and affinity, coördination and subordination) because these depend on conformity to an “archetypal idea ;” and all relations of *succession* (progressive, prophetic, and synthetic types) are ultimately grounded upon an intellectual, ideal connection embracing all development in time.

The *uniformities* of nature, contemporaneous and successive—uniformities in the order of co-existent phenomena (constitution of nature), and uniformities in the order of successive phenomena (course of nature) are the result of LAW, that is, of *ideas of reason enforced by power*. It is *law* which unifies everywhere, in all worlds and all ages.

(A) RELATIONS WHICH ARE THE BASES OF ALL COMPARATIVE JUDGMENTS.

RESEMBLANCE (partial or total)	I. IN QUALITY	<ul style="list-style-type: none"> (1) <i>Statical</i> (relation of body to itself)—mass, inertia. (2) <i>Statico-dynamical</i> (mechanical relation of body to body—resistance solidity, mobility, position, size, weight, etc. (3) <i>Dynamical</i> (relation of body to the living subject)—modes of affecting the physiological Ego—sound, odor, light, color, temperature, etc.
	II. IN QUANTITY	<ul style="list-style-type: none"> (1) <i>Discrete quantity</i>—magnitude of Numbers, as two, ten, twenty. (2) <i>Continuous quantity</i>—magnitude of Extension, as length, breadth, depth. (3) <i>Intensive quantity</i>—magnitude of Degree, as heavy, light; swift, slow.
	III. IN FORM	<ul style="list-style-type: none"> (1) <i>External outline</i> or figure. (2) <i>Internal structure</i> or organism. (3) <i>Collocation</i> or arrangement of parts or organs.
	IV. IN FUNCTION	<ul style="list-style-type: none"> (1) <i>Functions</i> necessary to the exertion of locomotive energy. (2) <i>Functions</i> necessary to the preservation of life. (3) <i>Functions</i> necessary to the preservation of society. (4) <i>Functions</i> necessary to the perfection of humanity.

(B) RELATIONS WHICH ARE THE BASES OF ALL PRÆDICATIONAL JUDGMENTS (ANALYTICAL AND SYNTHETICAL).

TOTALITY (reciprocal whole and parts)	IN CONTENT (real wholes)	<p>1. <i>Colligation</i> of similar or dissimilar parts, constituting a <i>physical</i> or <i>integrate whole</i>—the Particular.</p> <p>2. <i>Interdependence</i> of parts or organs which are mutually means and ends, constituting a <i>vital</i> or <i>organic whole</i>—the Individual.</p> <p>3. <i>Co-inherence</i> (interpenetration) of essential attributes, constituting a <i>meta-physical</i> or <i>essential whole</i>—the Essence.</p>
		<p>1. <i>Similarity</i>—total sameness in the consecutively (or derivatively) essential qualities of a number of objects, constituting a <i>whole of Similars</i>.</p> <p>2. <i>Identity of essence</i>—absolute sameness in the constitutively essential attributes of a number of individual existences (molecules, cells, organs, souls), constituting a <i>whole of Identicals</i>.</p> <p>3. <i>Identity of ratios</i> or relations—absolute sameness or equality of ratios or relations, as e. g., the combining proportions of chemical elements; the convertibility and quantitative equivalence of forms of energy; sameness of function in organs different in form; constituting a <i>whole of Analogous</i>. (Analogous cases are instances which follow the same general law)</p> <p>4. <i>Coördination of functions</i>—coincidence of natural arrangements founded on different functions—the relation of one set of arrangements (or adaptations of structure to function) to another set of arrangements, in different individuals, constituting a <i>whole of natural Affinities</i>.</p> <p>5. <i>Subordination to archetypal ideas</i>—conformity to typical ideas, in varying degrees of complexity and perfection, (and under various modes of adaptation to function and environment) in an ascending series, constituting a <i>serial, ideal, or typical whole</i>.</p> <p>6. <i>Super-ordination</i> (preordination) to an <i>ultimate purpose</i>—conformity of all orders of existence to an ultimate or final purpose, constituting a <i>systematic whole</i>.</p>
EQUALITY	IN EXTENT (logical wholes)	ABSOLUTE EQUALITY—The absolute equivalence of a whole and all its parts.
		NUMERICAL EQUALITY—Two quantities, each of which is equal to a third quantity, are equal to each other.
		MORPHOLOGICAL EQUALITY—In all determinate or absolute forms the relations are equal; as e. g., the radii of a circle; all right angles are equal to each other.
		DYNAMICAL EQUALITY—Action and reaction are equal and opposite.
UNIFORMITY		OF CO-EXISTENCE—uniformity of the constitution of nature, “the same substances have always the same attributes”—“the same properties coexist with the same properties.”
		OF SUCCESSION—uniformity of the course of nature—“similar consequents follow similar antecedents.”

(C) CORRELATIONS WHICH ARE THE BASES OF ALL IMMEDIATE (NECESSARY) JUDGMENTS.

METAPHYSICAL UNITY	{	INHERENCE	(Correlates— <i>attributes=substance</i>). Attributes inhere in a substance or substratum. "All qualities necessarily suppose a subject or substance in which they <i>inhere</i> , and through which the subject is manifested."
		CAUSALITY	(Correlates— <i>phenomena=force</i>). All motion and change, all that appears, everything that begins to be, supposes a power in action, adequate to its production, that is, an efficient cause. "All phenomena present themselves to our reason as the manifestation of power, and refer us to a <i>causal</i> connection."
		POLARITY OR POLAR OPPOSITION	(Correlates— <i>multeity=unity; diversity=identity; conditioned existence=unconditioned Being</i>). All reality manifests itself in opposite and correlated forms of energy which perpetually tend to a relative unity—thesis, antithesis, and synthesis. "Opposite forces are modes of one and the same power, which tend to unity in a harmonious product."—(COLERIDGE.) Opposite concepts are the product of one and the same energy of reason; "Correlates are known only together; the science of opposites is one."—(HAMILTON.)
			N. B.—Of opposites there are two kinds, one denies, the other posits; one is logical, the other real; one is contradictory, the other is polar or correlative.
		INTENTIONALITY	(Correlates— <i>means=ends</i>). Every adaptation of means to an end supposes an <i>intention</i> or design. "Nature presents itself to our reason as 'a realm of aims,' a vast teleological scheme, a system of wise adaptations in which all is united by a predetermined purpose or relation of <i>intentionality</i> ."
		OBLIGATION	(Correlates— <i>rights=goods</i>). All morality is based upon the relation between two persons, between I and Thou, Will and Will, natural rights and the highest good—the relation of <i>obligation</i> . Personality imposes upon me a duty, and confers upon me a right, therefore rights and duties are reciprocal, and the common bond is moral <i>obligation</i> .

(D) RELATIONS WHICH ARE THE BASES OF ALL MEDIATE INFERENCES (ANALYTIC AND SYNTHETIC.)

LOGICAL AND METAPHYSICAL UNITY	{	HOMOGENEITY OF TERMS		{	The validity of all <i>analytical</i> inference (sometimes called "deductive inference") rests on the preservation of homogeneity of terms, and the identity of their ratios.	
		IDENTITY OF RATIOS				
		{	EFFICIENT	{	The validity of all <i>synthetic</i> inference (sometimes called "inductive inference") which makes a real addition to our knowledge, is the necessary presupposition that a <i>real conformity to law</i> (—REASON enforced by POWER) exists and can be known, according to the principles of Sufficient Reason. "The logical connection of thought corresponds to the causal connection of things."	
			CAUSALITY			FORMAL
						FINAL

(VI.) CONDITIONS OF ALL MODES OF THE UNDERSTANDING.

1. ATTENTION. The first condition of all thought, of any mode of comprehension, is an act of selective attention, that is, the concentration of the mind upon certain qualities or characteristics of a given object and its withdrawal or abstraction from all else in order to accurately observe those qualities and characters and compare them with the characteristics or qualities of other objects. "In technical language, we are said to *prescind* the phenomena which we exclusively consider. To *prescind*, to *attend*, and to *abstract*, are merely different but correlative names for the same process, and the first two are nearly convertible. When we are said to *prescind* a quality we are merely supposed to attend to that quality exclusively, and when we *abstract*, we are properly said to *abstract from*, that is, to throw other attributes out of account."—HAMILTON: "Logic," p. 88.

"Abstraction is the concentration of our attention on a particular object, or a particular quality of an object, and diversion of it from anything else."—J. S. MILL. "Abstraction is nothing more than non-attention to certain parts of an object."—MANSEL. Selective attention is "a simple spontaneous power for the production of which no organic medium can be assigned."—FEUCHTERSLEBEN. It is "purely an act of WILL."—DR. LAYCOCK.

2. RECOLLECTION. The second condition of understanding is recollection—the representation in consciousness of the notion of a past object of intuition, in order to compare, classify, and generalize our knowledge. This act of representation is all-important, because it would not only be inconvenient, but impossible to collect all the actual objects we desire thus to compare, classify, etc. The absence of the representative power would be a disqualification for all thought and all scientific knowledge. "Let us suppose, for example, a being in whose mind every successive state of consciousness was forgotten as soon as it had taken place. Every individual object might be presented to him precisely as it is to us. Animals, men, trees, and stones, might be successively placed before his eyes; pleasure and pain, and anger and fear, might alternate within him: but as each departed, he would retain no knowledge that it had ever existed, and consequently no power of comparison with similar or dissimilar objects of an earlier or later consciousness. He would have no knowledge of such objects as referred to separate notions; he could not say this, which I see, is a man or a horse; this, which I feel, is

fear or anger. He would be deficient in the distinctive feature of thought,—the concept or general notion resulting from the comparison of objects.”—MANSEL: “Prolegom.,” p. 21.

(VII.) FIRST FORM OF UNDERSTANDING—THE SYNTHETIC UNITY OF CONCEPTION. CONCEPTION, the act of which the general notion, or CONCEPT is the result, expresses the act of pre-scinding, comparing, and *comprehending or grasping into unity*, the various qualities, marks, or characteristics in which a plurality of objects coincide or resemble each other, and denoting the class or group by a general term. “The rude materials furnished by sense, retained in memory, and reproduced by reminiscence, the Understanding elaborates into a higher knowledge,” by means of abstraction, comparison, and classification.—HAMILTON: “Logic,” p. 85, 87.

When, by an act of the mind, we have abstracted from the *relations in space* under which all objects of sense are presented, and by virtue of that abstraction, comparison, and classification, have advanced from individual to specific unity, from the similar attributes of several objects to the mutual relation of all, the *result* of the process becomes a mental product, the offspring of thought—a concept.

A CONCEPT may, therefore, be defined as “the cognition of the general character or characters, attribute or attributes, in which a plurality of objects coincide;” or again, a concept is a collection of attributes united by a common sign, and capable (1) of *symbolizing* a possible object of intuition, or (2) of being *attributed* to a class of possible objects of intuition. Concepts are therefore of two classes, those which are *symbolical*, and those which are *attributive*.

1. A *Symbolical* (substantially or essentially abstract) *concept* is an actual part of the common or essential characteristics of a class of objects chosen to represent the whole of the individuals comprised in the class. It is a real type, not an arbitrary sign. “It is characterized by a translucence of the special in the individual, of the general in the special, and of the universal in the general. It always partakes of the reality, which it renders intelligible, and while it enunciates the whole, abides itself as a real part of the unity which it represents;” as e. g. plant, animal, man, vertebrate, mollusk.

2. An *Attributive* (verbal, adjectival, relational) *concept* is a single act, quality, or relation, pre-scinded, generalized and named,

which may be predicated of, or attributed to a class of possible objects, of intuition ; as e. g., thought swiftness ; wisdom, kindness, purity ; ruler, servant, officer. It is to this class that the epithet “connotative” is specially applied, because they *denote* an activity, quality or relation, and *connote* objects performing the acts, possessing the qualities, or sustaining the relations.

EXTENT AND CONTENT of Concepts. All symbolical concepts have a double meaning—a meaning in *extension*, and a meaning in *intension*. The extension of a concept is made up of the number of objects which are thought mediately through a concept—the number of objects embraced under the concept. The intension of a concept is the number of different attributes of which the concept is the conceived sum—the qualities which are necessarily possessed by the objects bearing that name. Thus, for example, “What is the meaning of the name ‘metal?’” The first and most obvious answer is that metal means either gold, or silver, or iron, or copper, or aluminium, or some other of the 48 substances known to chemists, and considered to have a metallic nature. These substances then form the plain and common meaning of the name, which is the meaning in *extension*. But if it be asked why the name is applied to all these substances and to these only, the answer must be: Because they possess certain qualities which belong to the nature of metal. We cannot, therefore, know to what substances we may apply the name, or to what we may not, unless we know the qualities which are indispensable to the character of a metal. Now chemists lay these down to be somewhat as follows: (1) A metal must be an element or simple substance, incapable of decomposition by any means known. (2) It must be a good conductor of heat and electricity. (3) It must possess a great and peculiar reflective power, known as metallic lustre. These properties are common to all metals, and are what mark out and distinguish a metal from other substances. Hence they form in a certain way the meaning of the name metal, the meaning in *intension*.”—JEVONS: “Elem. of Logic,” p. 38.

SCIENTIFIC CLASSIFICATION AND REALISM. The numerous groups into which animals and plants have been divided are *ideal entities* which have an objective basis. Classes, orders, families, genera, and species exist *as such* only in the mind. Objectively, that is, in nature, there is nothing but individual animals and plants. Nevertheless, the different biological groups

also exist objectively in those *facts of structure* which various animals and plants present, and which serve for the definition of such various groups. Natural classification, indeed, though formed *by* the mind, does not *depend on* the mind. It is not arbitrary, but is governed by the eternal reality of things. It is not that *we choose* to separate bats and whales, from birds and fishes respectively, and put them in the same class as that which contains also the lion and the antelope. We are *compelled* by the multitudinous facts of animal structure, so to separate and to class them. Moreover, such zoölogical classification is only possible because different animals are found to have *like* parts (part *alike* as to their relations of position to other parts) which can be compared and contrasted, and can, by the agreements and disagreements they present, furnish us with the determining and limiting characters of the different natural groups. Every bird and beast, every fish and insect, is formed of a complete aggregation of parts which are grouped together into a *harmonious interdependency*, and have a multitude of *relations* among themselves, of different kinds. The mind detects a certain number of these relations as it follows up different lines of thought. To detect the most hidden laws of *unity*, the fixed *ideal types* underlying the differences presented in animal structure, is the work of philosophical anatomy. "The types shadowed forth to our intellects by material existences, are copies of divine originals, and respond to prototypal ideas in God."—ST. GEORGE MIVART: "Lessons from Nature," ch. viii.

See AGASSIZ: "Essay on Classification," chap. i, §§ 1-4. THOMSON: "Outlines of the Laws of Thought," pp. 116, 124 "On Nominalism and Realism."

(VIII.) SECOND FORM OF UNDERSTANDING—PRÆDICATION.

A PRÆDICATIVE JUDGMENT (Logical Affirmation), the act of which a Proposition or Prædication is the result, is a combination of two concepts, as related to common objects of possible intuition. This form of logical judgment is "the consciousness of the objective validity of a subjective union of concepts, whose forms are different from, but belong to each other."—UEBERWEG: "Logic," p. 187.

(1) All Predicative Judgments are either *Analytical* or *Synthetical*. Analytical Judgments are those which analyze, or distinctly evolve in the predicate what is obscurely contained in the subject; e. g., "All bodies are extended," a proposition in which

the predicate "extended" is involved in the very conception of "bodies." Mathematical axioms are of this character—such as "The whole is greater than its part;" "Things that are equal to the same are equal to each other;" "If equals be added to equals, the sums are equal." Of this character are all propositions in which the predicate is said to be of the *essence* of the subject; whether a part of the essence, as in the predication of genus or differentia or the sum of the parts, as in the case of definition. These judgments do not, in reality, communicate any new element of knowledge, but give a distincter apprehension and larger application to the knowledge we already possess. Hence they are called, also, Explicative Judgments. Synthetical Judgments are those which by means of the predicate *add* to the conception of the subject a *new* and additional conception, as e. g., "All bodies have weight," a proposition in which the conception "weight" is added to that of "body," and yet is not necessarily involved in the conception of "body." Or, again, "All monocotyledons have parallel-veined leaves," a proposition in which the conception "parallel-veined leaves" is not contained in the conception "monocotyledons," but is derived *à posteriori*, that is, from observation or experience. Of this kind are all propositions in which the predicate is said to be joined to the essence as a property or accident. Inasmuch as the synthetic judgment is a positive extension of our knowledge, it is called, also, an Amplicative Judgment. Analytic judgments *à priori* are based on the relation of Identity or Equality. Synthetic Judgments *à posteriori* are based on the relations of coëxistence and succession, and of reciprocal whole and parts.

See KANT: "Critique of the Pure Reason," pp. 7-12. MANSEL: "Prolegom.," pp. 93-98.

Note.—All Analytical Judgments are *à priori*; Synthetic Judgments are either *à posteriori* or *à priori*. Synthetic judgments *à posteriori* belong to predicative judgments; synthetic judgments *à priori* are ideational judgments, that is, First Principles.

(2) Synthetic (amplicative) Judgments *à posteriori* are either *Extensive* or *Intensive* propositions. This distinction of Judgments is taken from the relation of Subject and Predicate as reciprocally whole and part. If the Subject or determined concept be viewed as the containing whole, we have an *Intensive* proposition; if the Predicate or determining concept be viewed as the containing whole, we have an *Extensive* proposition.

This distinction of propositions is founded on the distinction of the two qualities of concepts—their *Extent* and their *Content*.

(3) Synthetic Judgments are again classified in view of the different mode in which the relation of determination subsists between the subject and predicate of a proposition. This relation is either *simple* or *conditional*,

A. *Simple*. When the relation is simple, excluding all extrinsic conditions, the judgment is *categorical*—A is B.

{ When the relation is conditional, and the qualifying condition lies proximately in the subject, the judgment is *hypothetical*—if B is, then A is.

B. *Conditional* { When the relation is conditional, and the qualifying condition lies proximately in the predicate, the judgment is *disjunctive*—A is either B, or C, or D.

{ When there is a two-fold condition, one belonging to the subject, and the other to the predicate, the judgment is *dilemmatic*—if X is A, it is either B or C.

4. Synthetic Judgments are further classified as to their *Quality*. “Either the Subject and Predicate may be recognized as reciprocally containing and contained in the opposite qualities of Extension and Comprehension [Intension]; or they may be recognized as *not* standing in this relation. In the former case the Subject and Predicate are affirmed of each other, and the proposition is an *Affirmative*; in the latter case they are denied of each other, and the proposition is called a *Negative* Judgment.”

5. Finally, Synthetic Judgments are classified in view of their *Quantity*. The quantity of Judgments has reference to the whole of Extension by the number of objects concerning which we judge. If the judgment is concerning the whole of a conception, it is *Universal*; if concerning a part of the conception, it is *Particular*.

(IX.) THIRD FORM OF UNDERSTANDING = IDEALIZATION (=IDEATION).

IDEALIZATION is that special form of the understanding process, sometimes called “Immediate Abstraction,” by which the mind seizes the necessary and universal element [the rational idea or law] in all concrete existences, presents it in its pure form, and affirms it as a universal and necessary law of all cognition and all thought. It is through “this faculty of universalizing

(idealizing)—separating the intelligible form, or the *essence* of the objects perceived—that the mind attains to universal principles.”—ROSMINI: (Ueberweg’s “Hist. of Philos.,” vol. ii, p. 49.)

It is because man is endowed with reason that there is in him this tendency to “the idealization of facts” of experience; that there is in him “the inherent tendency to contemplate all his cognitions in their universality, integrity and perfection.”—GREEN: “Spiritual Philos.,” vol. i, p. 213.

“Abstraction in conjunction with the *idealizing* activity passes beyond what is given [in perception], fashions what is higher in science, according to scientific laws, into the *regulative typical conceptions*” [or universal principles or Laws].—UEBERWEG: “Logic,” p. 549.

“In the Republic (B. VI., §. 510; B. VII, §. 532—Jowett’s Trans.), Plato contrasts deduction,—which, from certain general propositions that are, however, not necessarily ultimate, or expressive of first principles, derives conclusions that depend on them,—with the process of *rising to the unconditioned*, a process which is accomplished by the suppression of all that is merely hypothetical, that is, eliminating all that is particular and individual, and disengaging the absolute.”—UEBERWEG: “Hist. of Philos.,” vol. i, p. 121.

Aristotle was just as much a *realist* as Plato, though he made the realities accessible by a different path. His controversy with Plato never touched the question as to *whether* we have any ontological knowledge, but only the question *how* we have it. Plato explained how we have it, by identifying the objective ideals, reasons and laws embodied in nature (which Aristotle called “forms”) with the subjective, universal ideas of the intellectual constitution of the universe; its hierarchy of essential types and universal and derivative laws come up into conscious forms on the corresponding theater of our reason, by virtue of the kinship of our reason with the eternal reason, and our sympathetic share in the thoughts incarnated in nature, so that we read its deepest meaning and essence straight off by a sort of rational insight. For this doctrine of *immediate fellowship of reason with its objective realities*, Aristotle substituted a method of gradual approach to them: declaring that whilst nature develops itself *deductively*—thinking itself out into actuality, from the universal to the particular—we must trace the same line regressively or *inductively*, beginning with the sensible, which is nearest to us,

and gradually ascending to the universal, which is furthest.—
MARTINEAU: "Essays," 1st series, p. 79. St. Augustine, Descartes, Malebranche, Cudworth, Clarke, Taylor, Schleirmacher, Cousin, Martineau, Tappan, Mahan and Smith follow Plato.

I. THE NATURE, or *actual characteristics*, of *Rational*, or *Absolute Principles*. The Rational, or Absolute Principle, is a synthetic judgment *à priori*, of which the two terms (*termini*), or correlates, are a *general concept* and an idea of the *pure reason*, as e. g. :

General Concept—Attribute	Idea of Reason—Substance (real Being)
—Change	—Power
—Succession	—Duration
—Multiplicity	—Unity
—Diversity	—Identity
—Means	—Ends
—Rights	—Goods (chief-good)
—Conditioned	—Unconditioned.

(1) *The Absolute first appears in the concrete.* The Absolute first makes its appearance in the intelligence under a concrete form, that is, in synthesis with individual and particular perceptions, constituting our first notions. "All our synthetic judgments *à priori* are at first particular and determinate judgments, and it is under the form of particular and determinate judgments that all universal principles make their first appearance." Thus, a certain change appears under our eyes at the moment of speaking, and in an instant, without any reflection, and any doubt, we affirm it must have a cause. The child, the savage, and the philosopher are equally certain at this point. No human being can be found who would, at the very instant, assert that the change was uncaused, or had no cause. This is an act of pure spontaneous affirmation—the natural logic of the human mind.

"First principles of every kind have their existence, and, indeed, operate powerfully and largely, long before they come to the surface of human thought, and are articulately expounded."—FERRIER. (PORTER: "Human Intell.," pp. 81, 497, 499.)

(2) *The Absolute, secondly, appears as a law of the mind.* In the more developed intelligence the Rational principle appears as a law of thought (a belief, a category) which is authoritative, without any inquiry as to its authority. We feel that it is impossible for us not to believe that it is true in itself, even when we cannot explain to ourselves the ground of our incapacity to believe otherwise. Pure apperception having become a necessary belief, constitutes logic-proper.

II. THE ORIGIN, or *primitive characteristics of Rational, or Absolute Principles*. The origin of Rational Principles is found in the necessary and universal ideas of the Reason and the necessary relation (*correlation*) between them and actual phenomena.

Every principle is, in reality, actualized by an idea, and every idea of the reason is real, productive, and contains an endless power of semination. The intuitive reason is the source of ideas and the foundation of the necessary and the universal in our judgments and conclusions. All our primitive judgments are personal and determinate; nevertheless, in the depth of these personal and determinate judgments are *ideas* and *relations* which are not personal and determinate, although they determine and individualize themselves in the determination and individuality of the terms. Synthetic judgments *à priori* are not founded upon external and internal perceptions, for relations are not the objects of sense, neither are they generalizations from sensible experience. They are founded upon reason, which, without the intervention of any reasoning process attains its objects by direct insight, and apprehends them with infallible certainty. The reason does not appeal to any authority save its own; the reason believes in itself. If then intuitive reason is above induction and demonstration, the faith of reason in its own intuitions is purer, stronger, more elevated than our confidence in induction and demonstration. Our inference may be perfectly logical, our demonstration may be necessary, whilst our premises are false. But the principles which reason supplies are necessary and absolute. The authority of reason is, therefore, absolute.

In affirming that the Reason is the ultimate source of that absolute authority which distinguishes synthetic judgments *à priori*, we are led to recognize that its ideas are not *our* exclusive and individual property, and that its authority is not *our* authority. The light of reason makes its appearance in us, but is not of us, and can in no way be confounded with our personality. When the conditions of knowledge are present, the reason imposes its truths upon us, independent of our wills. Whence comes this wonderful quest which is the source of this uniform and universal illumination? It is the absolute and eternal Reason, the *λόγος*, which “enlightens every man that comes into the world.” “Above reflection is a sphere of light and peace, where our reason [a ray of the divine] perceives the truth without returning upon itself, for the sole reason that truth is truth, and *because*

God has made the reason to perceive the truth, as he has made the eye to see, and the ear to hear.”—COUSIN: “True, Beautiful and Good,” p. 70.

On the *Impersonality of the Ideas of the Reason*, see COUSIN: “Hist. of Philosophy,” vol. i, pp. 85-87; 127-132. “True, Beautiful and Good,” pp. 70-71; and whole of ch. iv. MARTINEAU: “Essays,” 1st series, pp. 372, 373. ROSMINI and GIOBERTI (in Ueberweg: “Hist. of Phil.,” vol. ii, pp. 490-500.)

III. *The PROCESS by which Rational or Absolute Principles are disengaged from individual facts and presented in their pure form*—IMMEDIATE ABSTRACTION.

Immediate abstraction—the abstraction of the universal and necessary *correlations* between phenomena and realities, and their positive affirmation as absolute principles or laws of cognition and thought. “The necessary correlation constitutes the principle.”

Immediate (not comparative) abstraction operating, not upon a number of concrete instances, but upon a single case, eliminates the individual and particular element, and disengaging the absolute element, raises it at once to its pure and universal form. The parts to be eliminated in a concrete cognition are, 1st, The particularity of the object and of the circumstances under which the absolute truth unfolds itself; 2d, The individuality of the subject which apprehends but does not constitute the absolute truth. Eliminating the finite ME and the relative NOT-ME; the absolute remains.—COUSIN: “Elements,” (Henry’s edition) p. 503.

Two terms, or correlates, are presented in consciousness, one the notion of *change* (phenomena, motion and event) the other, the idea of power (conditioned power, force); the reflective faculty or discursive reason seizes the correlation between them, and by an act of immediate abstraction, which has no need to observe, compare, and classify a number of instances, at once eliminates the particularity and individuality of the terms, and disengages the universal and necessary relation in its abstract form.

On the *Distinction between Comparative and Immediate Abstraction*: See COUSIN: “True, B. and G.,” pp. 56-58

(X.) FOURTH FORM OF UNDERSTANDING=MEDIATE INFERENCE.

Illation or inference (from *infero*—to bring, to bring forward) is the carrying forward into the last proposition (the consequence) what was virtually contained or involved in the antecedent judgments (the premises). All inference is, therefore, in reality *deductive*, not inductive. “Inference (*ratio, ratiocina-*

tio, ratiocinium, discursus. συλλογισμός) in the widest sense, is the derivation of a judgment from any given elements. Derivation from a single concept, or from a single judgment, is *immediate* inference. Derivation from at least two judgments is *mediate inference*, or inference in the strictest sense."—UEBERWEG: "Logic," p. 225.

Note.—The "immediateness" of this so called "immediate inference," is, however, relative, and derives its validity from latent principles in the mind, or from another judgment, which though suppressed in statement is involved in thought; and if the real ground of the inference were exhibited, the reasoning would constitute a syllogism.

A *syllogism* is a combination of two judgments necessitating a third judgment as the consequence of their mutual relation. A syllogism, therefore, contains three judgments, and three terms (*termini* or boundaries); the two whose agreement or disagreement we are seeking to determine, and a third by which we determine it. The two first are the Extremes, and the third is the Middle term. The two judgments in which the middle term occurs are called the Premises, and the remaining one is the Conclusion.

The relation of the Extremes to the Middle term is either a relation of IDENTITY (total or partial) or a relation of CAUSALITY (efficient, formal, or final)—that is, the relation of force to change, of archetype to ectype, of end or reason to means. This involves a division of Inference into two classes—*Analytic* and *Synthetic*.

1. ANALYTICAL ILLATION OR INFERENCE, is inference by the analysis of concepts, inference from Identity (total or partial). Total Identity is absolute sameness of Essence; partial Identity is relative sameness, unity perceived under plurality, constituting a logical whole.

Hamilton calls this "deductive inference," also "intensive (comprehensive) deductive syllogism."

"Aristotle regards the deductive syllogism as an analysis of a logical whole into its parts, and he makes deduction [analytic illation] necessarily dependent on induction" [on *à priori* analytico-synthetical process by which general notions and propositions are formed].—HAMILTON: "Discussions," p. 166.

"In so far as the true and proper ground of a thing [or concept] lies in the *essence*, to this extent the syllogism rests upon the essence, and since the definition gives the essence, syllogis-

tic knowledge stands in the most reciprocal relation to knowledge by definition, in spite of their undeniable difference. The definition is the principle of the syllogism in so far as it supplies the major premise," because it reveals the *essence*; and the relation of the extremes to the essence (middle term) is the ground or reason of the conclusion.—UEBERWEG: "Logic," p. 342.

PRINCIPLE WHICH GIVES VALIDITY TO THE ANALYTIC INFERENCE. All perfect and really valid analytic inference rests upon absolute or relative Identity of Essence (Law of Identity, $A=A$).

In every syllogism the force of the reasoning depends on what is called the *Middle term*. This middle term must stand in a fixed and changeless relation to the major and the minor, or no conclusion can be valid. What is the principle which embraces or expresses this relation? It is usually answered that, the principle or maxim of Aristotle entitled the *Dictum de omni et nullo*—"whatever is universally affirmed (or denied) of a class, may be affirmed (or denied) of every thing contained in that class." The relations of whole and parts, or of both extent and content combined, do not, however, give to the premises of the syllogism the power of demonstration. They *suggest* but do not express the real relation which furnishes to the deductive process its convincing power over the mind. No syllogism is valid to which the Dictum cannot be applied, but it does not follow that the maxim contains the real ground. The rule may *test* every syllogism without stating the *relations* on which the argument rests its force to compel assent.—(PORTER: "Intell. Philos.," p. 447.)

THE LOGICAL PRINCIPLE OF IDENTITY. The absolute sameness or permanence of the knowing subject or Ego justifies the assumption that there must be an ultimate *essence* in individual things, distinct from their individual characteristics, which authorizes their union in thought under one general notion, or concept. Hence the Principle or Law of Identity ($A=A$), "the same attributes constitute the same essence," or "identical existences have always the same essential attributes, and the same permanent relations to other substances;" as, for example, every molecule of hydrogen must have the same properties, the same definite mass, the same periodic vibrations, and the same chemical affinities. If these were to be altered in the least, it would no longer be a molecule of hydrogen.—(MAXWELL: "Theory of Heat," p. 310. "NATURE," vol. ii, p. 421.) Our confidence in the uniformity of the constitution of nature (uniformity of co-

existence) is simply a manifestation of this same principle or law of thought—"the same attributes which constitute the same essence will always be found coëxistent, so that if one be presented the rest are necessarily assumed."

The Principle of Identity, then, expresses the relation of *total sameness* in which a concept stands to all, and the relation of *partial sameness* in which it stands to each, of its constitutively and derivatively essential attributes. In other words, it declares the impossibility of thinking the concept and its attributes as reciprocally exclusive. *The attributes conceived as the content of the concept must inhere in all the objects symbolized by the concept (its extent).*

Concrete illustration of the Principle of Identity. When we pass from the contemplation of physical phenomena to the consideration of the molecules themselves, we leave the world of *chance and change* and enter a region where everything is *certain and immutable*. The molecules are all conformed to a *constant type* with a precision that is not found in the sensible properties of the bodies which they constitute. 1st, The mass of each individual molecule, and all its properties are *absolutely unalterable*. 2d, The properties of all molecules of the same kind are *absolutely identical*. "Let us consider the properties of two kinds of molecules, oxygen and hydrogen. We can procure oxygen from very different sources—from the air, from water, from rocks of every geological epoch. In like manner we can procure hydrogen from water, from coal, or as Graham did from meteoric iron; and all the molecules of the same kind are found to be absolutely identical.

	HYDROGEN (H).	OXYGEN (O).
1. In ATOMIC WEIGHT (H=I)	1.	16.
2. In COMBINING PROPORTIONS (by weight)	1.	8.
3. In COMBINING PROPORTIONS (by volume), one quart, one pint, one cubic foot, etc.	2.	1. =H ₂ O
4. In SPECIFIC HEAT (the atoms are associated with equal amounts of specific heat)	3. 4090	3. 48
5. In PERIODIC VIBRATIONS (Internal movements) when these are excited, the molecule emits rays, the wave-length of which is a measure of the time of the vibration	4. 4 fourteenth seconds	(?)
6. In VELOCITY (of mean square) metres per second at 0° Centigrade	1859	465
7. In MEAN-PATH (tenth-metres)	965	560
8. In COLLISIONS in a second (millions)	17750	7646
9. In DIAMETER (tenth-metres)	5.8	7.6
10. In MASS (twenty-fifth grammes)	46	736

NOTE.—A fourteenth second is a second of time divided by 10¹⁴; a tenth-metre is a metre divided by 10¹⁰.

See "NATURE," vol. ii, p. 421; vol. vii, p. 441. (The students' attention is especially directed to the entire article "On Molecules" by Prof. Maxwell.

Metaphysical Principle lying at the ultimate basis of the logical Principle of Identity. "We hang everything at last, upon the will of the Creator [a Will which is the synthesis of Eternal Reason and Omnipotence]. And it is only so far as he has created two things ALIKE and maintains the foundations of the universe *unchanged* from moment to moment, that our most careful inferences can be fulfilled."—JEVONS: "Principles of Science," vol. i, p. 168.

(II.) SYNTHETIC ILLATION or "Inference of Subordination"—a real extension of our knowledge is "the combination of necessary truths of reason with contingent knowledge."—APELT.

Synthetic inference is the *extension* of the results of our generalized experiences (predicative judgments) to other facts or objects beyond our experience (the *past*, the *distant*, and the *future*), that is, proceeding "from the known to the unknown" by a mediate judgment warranted by an *à priori*, necessary and universal principle or law.

Hamilton says that "the inductive inference [synthetic inference] is warranted by the general analogy of nature," ("Discussions," p. 157), or "the presumption that nature is uniform in her operations." ("Metaphysics," p. 72.) So also Cousin affirms that it rests upon "the supposition of the constancy of nature." ("Hist. of Philos.," vol. ii, pp. 126, 127.)

But it is admitted that the principle which gives validity to the inductive (synthetic) inference "cannot itself be the product of induction," (—HAMILTON: "Metaphysics," p. 72), for then we should be perpetually arguing in a vicious circle (*petitio principii*). If the conviction of the universally valid truth of the premises is first reached by comparison of all individual cases (which is simply impossible in regard to the past, the distant and the future) then it is evident that those cases which are asserted in the conclusion must also be included in the cases compared, and the truth of the conclusion must already be established ere the truth of the premises can be recognized; thus we really fall into the fallacy of the circle when we attempt again to deduce the conclusion from the premises. (UEBERWEG: "Logic," p. 338.) All *scientific* predictions, all inferences which reach beyond their data are purely hypothetical, and proceed on the *assumption* that new events will conform to the conditions observed of past events—and if we ask for the real ground of validity we must fall back upon metaphysical principles. Hamilton is therefore under the necessity of assuming that our belief in the uniformity of the course of nature (uniformity of succession) is a primitive, necessary and universal belief.

The constancy of the *course* of nature or the uniformity of causation is not a self-evident and necessary truth. In so far as it is a scientific truth it is purely an induction from experience, an experience which is necessarily limited, and therefore does not warrant a universal conclusion. There is no rational *à priori*

ground for the assumption that the same or similar causes (even if we understand by physical causes all antecedent conditions) shall necessarily produce the same effects. In other words, there is no authority for the assertion that the course of nature or the procession of phenomena must be absolutely uniform. Science has succeeded in establishing a strong probability, but it is beyond her power to demonstrate an absolute certainty. This is generally conceded, alike by physicists and metaphysicians. J. S. Mill says, "The uniformity in the course of events . . . must be received, not as a law of the universe, but of that portion of it which is within the range of our means of observation, with a reasonable degree of extension to adjacent cases."—"Logic," bk. iii, ch. xvi.) "The uniformity of causation," says Murphy, "is not a truth of the reason, it is known by experience only; and the truth of a conclusion from experience can never be free from all possibility of limitation or exception."—"Scient. Basis of Faith," p. 79.) And Professor Jevons asserts, "The conclusions of scientific inference appear to be always of a hypothetical and purely provisional nature. Given certain experience, the theory of probability yields us the true interpretation of that experience, and is the surest guide open to us. But the best calculated results which it can give us are never absolute probabilities, they are purely relative to the extent of our information. It seems to be impossible for us to judge how far our experience gives us adequate information of the universe as a whole, and of all the forces and phenomena which can have place therein."—"Principles of Science," vol. ii, p. 465.)

Before we can extend our knowledge from the known to the unknown (that which has not fallen under our experience)—before we can say that what holds true of the present, holds true of the past, and will hold true for the future; the universal and the necessary must be recognized as true, in order that the truth in regard to every individual case may be derived from syllogistic deduction.

In order, then, that the synthetic inference (syllogism) may become a real addition to the sum of our knowledge and a valid extension of science, the *major premise* of the syllogism must be the expression of the real *cause*—the efficient cause, the ideal or exemplar cause, or the final cause or purpose. That which gives real validity to the inference is consequently a metaphysical principle, and not an empirical generalization.

Ueberweg grounds the validity of the inductive inference on the *objective reign of law*, that is, a real causal nexus, and a real reason : for law is an idea of reason enforced or actualized by power. "The possibility of the syllogism, as a form of knowledge, rests on the assumption that a real conformability to law exists, and can be known, according to the principle of *sufficient reason*."—"Logic," p. 337.

"The laws of nature are those laws [or ideas] according to which the beings in the universe are conditioned by the Governor thereof, as regards time, place, and sensation." "Assuming the existence of a Supreme Governor of the universe, the principle of continuity may be said to be a definite expression, in words, of a trust that *He will not put us to a permanent intellectual confusion*."—STEWART AND TAIT (?) : "Unseen-Universe," pp. 47, 60. "The universe is not the work of chance, and therefore will not be found to contain any boundless irregularities, or mere freaks and inconsistencies of plan and principle. The universe is the work of mind, and, therefore, it will, amid all its diversity and variety, keep close to *order, law and principle*."—TAYLOR : "Physical Theory," etc., p. 307. "We hang everything upon the will of God the Creator, and it is only so far as He has created two things alike or maintains the framework of the world unchanged from moment to moment, that our most careful inferences can be fulfilled."—JEVONS : "Principles of Science," vol. i, p. 169.

"The truth is, that the ordinary course of nature is a continued miracle—one continued manifestation of the Divine mind. If that course is *uniform*, it is only because it is what it should be in order to be the expression of a Will which moves in harmony with an Eye which is omniscient, and an Intelligence which is perfect."—MCVICAR : "Sketch of Philos.," p. 117.

(XI.) FIFTH FORM OF UNDERSTANDING—RATIONAL INTEGRATION. The grand problem, the solution of which forms, according to Plato, the final object and distinctive character of Philosophy, is this—for all that exists *conditionally*, (that is, the existence of which is inconceivable except under the condition of its dependence on some other as its antecedent,) to find a ground that is *unconditioned* and *absolute*, and thereby to reduce the aggregate of human knowledge to a *system*—"the intellectual system of the universe." The possession by us of reason—of a spiritual nature, which is itself an absolute unity, and which is illuminated by the eternal reason, impels us to seek for a central unity in all the diversified phenomena of nature, which is the last and ultimate ground and explanation of all existence. "The end of Philosophy is the intuition of *UNITY*."—PLATO : "Philebus," p. 16.

"The transcendental conceptions of the reason imply absolute totality or completeness in the synthesis of conditions, and

seek to carry the synthetic unity which is conceived in the category up to the *absolutely unconditioned*.”—KANT: (Ueberweg, “History of Philosophy,” vol. ii, p. 173.) “Philosophy, then, as the knowledge of effects in their causes necessarily tends, not towards a plurality of ultimate causes, but towards ONE alone.”—HAMILTON: “Metaphy.,” p. 41. “The inevitable tendency of our intelligence is towards a philosophy radically *theological*, so often as we seek to penetrate, on whatever pretense, into the intimate nature of phenomena.”—COMTE: “Pos. Philos.,” vol. iv, p. 662.

“If the universe had a beginning, that beginning, by the very conditions of the case, must have been *supernatural*; the laws of nature cannot account for their own origin.”—J. S. MILL: In “Westminster Review,” April, 1865, p. 135.

“We cannot think about the impressions which the external world produces upon us without thinking of them as *caused*, and we cannot carry out an inquiry concerning their causation without inevitably committing ourselves to the hypothesis of a *First Cause*,” (p. 37) “—a First Cause in every sense perfect, complete, and total: including within itself all power, and transcending all law. Or to us the established word, ‘absolute.’”—p. 38. SPENCER: “First Principles.”

“The principle that wherever there is plurality or diversity there must be *unity* hidden in, or behind it, appears to be a truth of reason, and not a generalization from experience. . . . Furthermore, while the axiom of Unity proves that the universe has a principle of unity transcending physical law, the axiom of Causation proves that it has a Cause transcending physical causation. . . . The principle of unity is an absolutely originating Cause.”—MURPHY: “Scient. Basis of Faith,” pp. 195–201.

There exists in man, as the essential characteristic of his humanity, a power styled the Reason, which awakens in him the desire, and determines his understanding to the effort, to comprehend all his necessary *à priori* intuitions in their absolute integrity, universality and perfection.

This absolute integration is attained when all the necessary and universal principles which have been reached by the idealization of the facts of experience are united in one ultimate of all ultimates (*principium principiorum*) or Unconditioned Cause, which contains, predetermines, and produces all things in their manifold and harmonious relations, in subordination to a final purpose; thus realizing a totality (a Cosmos) of which this absolute principle is still the conserving and governing Energy.

The requisite insight of such ultimate causative Principle is derived from the idea of WILL as revealed in human consciousness—*will* which is the very core and center of our personality, the basis of all our conscious knowledge of reality, unity, identity

and causality, and the only form under which it is possible for us to conceive of a truly originative and determining Cause—a *Supreme and ever-living Will* which is the inseparable unity and perpetual differentiation of reason, power, and love ; the only explanation, and the sufficient explanation of all identity, all efficiency, and all perfection.

UNCONDITIONED	{	REASON—ground of all ideality	}	ABSOLUTE PERSON-
WILL		POWER—ground of all efficiency		
		LOVE—ground of all perfection		

See GREEN : "Spiritual Philos.," vol. i, p. 2. COLERIDGE : "Works," vol. i, p. 196. MURPHY : "Scient. Basis of Faith," p. 201. MARTINEAU : "Essays," 1st vol., p. 139 ; 2d vol., p. 188. SAISSET : "Mod. Panth.," vol. i, p. 32. HERSCHEL : "Outlines of Astro.," p. 233. CARPENTER : "Hum. Physio.," p. 542, 7th ed. ARGYLL : "Reign of Law," p. 123. LAYCOCK : "Brain and Mind," vol. i, p. 237. MUELLER ; "Christ. Doct. of Sin," vol. i, p. 13-16 ; 27-28. HERSCHEL : "Fam. Lect. on Science," pp. 461, 475.

DIVISION I.

PSYCHOLOGY.

PART II.

PHILOSOPHY OF THE SENSIBILITY.

(GENERAL CLASSIFICATION.)

SENSATIONS	(1) GENERAL PRIMITIVE SENSATION.	}	PHYSIOLOGICAL.
	(2) CENÆSTHESIS.		
	(3) MUSCULAR SENSE.		
	(4) SPECIAL SENSES.		
SENTIMENTS	(1) EGOISTIC.	}	PSYCHICAL.
	(2) ETHNOLOGICAL. (social "ego-altruistic")		
	(3) INTELLECTUAL.		
	(4) ÆSTHETICAL.		
	(5) ETHOLOGICAL, (moral "altruistic.")		
	(6) RELIGIOUS.		

THE PHENOMENA OF FEELING IN GENERAL. (The phenomena of Pleasure and Pain.) The term "feeling" is ambiguous. "In English, this, like all other terms of a psychological application, was primarily of a purely physical relation, being originally employed to denote the sensations we experience through the sense of *touch*, and in this meaning it still continues to be employed. From this, its original relation to matter and the corporeal sensibility, it came, by a natural analogy, to our express conscious states of mind in general, but particularly in relation to *the qualities of pleasure and pain*, by which they are characterized. Such is the fortune of the term in English; and precisely similar is that of the cognate term *Gefühl* in German. The same, at least a similar history, might be given of the Greek term *αἰσθησις*, and of the Latin *sensus, sensitio*." — HAMILTON: "Metaph.," p. 562.

SENSIBILITY OR SENSITIVITY is now used to denote the capacity of feeling as distinct from the power of cognition and of conscious self-determination. It includes sensation, both exter-

nal and internal, and all the emotions, or sentiments; in short, every modification of feeling which is accompanied by pleasure or pain.

PLEASURE AND PAIN. Pleasure is the result of certain harmonious relations, of certain agreements; Pain is the result of certain inharmonious relations, of certain disagreements. The pleasurable is, therefore, not inappropriately called the *agreeable*, the painful the *disagreeable*. In conformity with this doctrine Pleasure is the reflex of the spontaneous and unimpeded exertion of a power (faculty, capacity, disposition, tendency) of whose energy we are conscious; Pain is the reflex of a repressed or an overstrained exertion of such power."—HAMILTON: "Metaphysics," p. 577.

SENSATION is the universal condition of perception proper; and inasmuch as it is always associated with, or a concomitant of, certain affections of a vitalized organism, it is called *physiological*. At the same time it must never be forgotten, as even Mr. Mill admits, that "Sensations are states of the sentient mind, not states of the body as distinguished from it." Furthermore, in sensation the mind is not absolutely *passive*. Lotze defines sensations as "acts of self-assertion on the part of the soul in response to interference," and he speaks of "a power of the soul to produce sensation in response to nervous irritations." "The Ego is not *passive*, and cannot be, since it consists in free activity. Neither is the unknown object in sensation purely passive" since all the phenomena of matter are forms of energy. "Passivity, therefore, [in sensation] is nothing but the relation [the equipoise] between forces which act on each other," as equilibrium in mechanics is only a balance of opposite and equal forces.—COUSIN: "Elements," p. 430.

SENTIMENT (Emotion) is the universal consequent of cognitions. These (the emotions) belong exclusively to the spirit, and are, therefore, psychical not physiological. Dr. Noble (in "The Human Mind in its Relation to the Brain," etc.) has shown with great clearness and force, that emotional sensibility is not of a quasi-physical character—that it is not dependent upon any of those causes which operate in connection with purely sensational phenomena. (pp. 130-134.) Sentiment is the living and harmonious relation between reason and sensibility.

Note.—The student will please read Hamilton's Lectures, XLI-XLV.

DIVISION I.

PSYCHOLOGY.

PART III.

PHILOSOPHY OF THE WILL.

WILL { (1) POWER.
(2) SPONTANEITY.
(3) ALTERETY (Reflection and Choice).

WILL is "*the power of the soul by which it is the conscious author of an intentional act.*"—DR. WHEDON: "The Freedom of the Will," p. 15. MUELLER: "Christ. Doct. of Sin," vol. i, p. 28.

"The most fundamental conception of Mind or Spirit is that it is an individualized centre of power which has persistence or permanence; a self-manifesting Power, a spontaneous Power, an alternative, or pluri-efficient Power, a self-determining Power."

(I.) WILL constitutes PERSONALITY. The central point of our consciousness—that which makes each man what he is in distinction from every other man, that which expresses the real essence of the spirit, is the Will. Will expresses power, spontaneity, self-determination, self-direction—the ability to act independently and to form one's own character. Without will man would fall back from the elevation which he now assumes, to the level of impersonal nature; in a word, he would cease to be *man*, and become a *thing*. Will, power, spontaneity, alternativity, these, or similar words, express the essential nature of Personality—the essence of spirit.

See COUSIN: "Elem. of Psycho." (Henry's Ed.), pp. 422-423. MULLER: "Christ. Doct. of Sin," vol. ii, p. 55; On "the distinction between Powers and Things;" see BUSHNELL: "Nature and the Supernatural," p. 86. COUSIN: "True, Beaut. and Good," pp. 287-288.

(II.) WILL as POWER, FORCE, CAUSALITY. The will is a real power of producing change or motion *de novo*. Every intelligent effort is an exercise of originative, creative power which

makes the future different from what, but for the exercise of that power, it would have been. "Every free agent is therefore an original creator."—WHEDON. "I do not see how it is possible not to recognize an *original causation*, or at least one which it is morally and intellectually and logically impossible for us to find an antecedent."—HERSCHEL. "Many considerations lead me to conclude that Will, so far from being a result of certain chemical changes in matter, should rather be regarded as the *power* which influences the material particles and causes them to take up new positions" in the neural chances connected with memory and thought.—DR. BEALE. "Man exercises *power* when he communicates motion, that is, applied force to bodies, but that conscious exercise of power is eminently an act of will—a mental act—it is the Will."—DR. LAYCOCK. "In the control and direction which the will has the power of exerting upon the course of thought, we have the evidence of a new and independent *power*, which is entirely opposed in its very nature to all automatic tendencies."—DR. CARPENTER.

The will is a power or cause above nature and capable of producing results which nature does not produce.

See COUSIN: "Hist. of Philos.," vol. i, pp. 16, 17. TAYLOR: "Physical Theory," etc., pp. 243-245. WALLACE: "On Natural Selection," pp. 324-326. BUSHNELL: "Nature and the Supernatural," pp. 43-46. DR. BEALE: "Protoplasm," p. 121. COLERIDGE: "Works," vol. i, pp. 152, 263. MARTINEAU: "Essays," p. 126.

WILL as SPONTANEITY, that is, the will in its own intrinsic nature as subjectively free from all inner necessity of action. Spontaneity not only implies a real causative power, but a power which is under the agent's own control—a cause which has the point of departure wholly in itself. "It is the true and real dependence of our actions upon ourselves."—LEIBNITZ. Spontaneity therefore exists previous to deliberation. It is an activity for which no cause need be assigned, because the will itself is a full, complete, and adequate cause. "A complete cause needs nothing to cause it to produce its normal effect."—WHEDON. "The ME already exists with the productive power which characterizes it, in the flashing forth of spontaneity, and it is in this immediate flashing forth that it immediately apprehends itself. We may say that it discovers itself in *spontaneity* and establishes itself in *reflection*."—COUSIN.

WILL as ALTERNATIVITY. (Pluripotent causation). In the midst of any movement spontaneously originated by ourselves or excited by external objects, we have the consciousness of being

able to commence a different movement instead. We have the power (1) of conceiving it, (2) of deliberating whether we shall execute it, of weighing or considering reasons for and against the conceived mode of action, (3) of finally resolving and proceeding to its execution—of beginning, of pursuing, of suspending or retarding, and at all times of controlling it. “The fact is certain; and it is no less certain that the movement accomplished on these conditions assumes a *new* character; we impute it to ourselves, we refer it, as an effect, to ourselves, we consider ourselves as the cause;” we approve or disapprove our action, and we regard ourselves as accountable for it.

“Power, in the only form in which we are conscious of it, is *the power to choose between two alternatives*. . . . I am the cause of my own actions inasmuch as I do them voluntarily, with a power at the same time to abstain from them.”—MANSEL: “Proleg.,” p. 277.

FREEDOM OF THE WILL, is “the power or immunity to put forth in the same circumstances either of several volitions. Or supposing a given volition to be in the agent’s contemplation, it is the unrestricted power of putting forth in the same unchanged circumstances, a different volition instead. Hence, it is often at the present day called, *the power of contrary choice*.”—WHEDON: “On the Freedom of the Will,” p. 25.

WE HAVE AN IMMEDIATE CONSCIOUSNESS OF FREEDOM. The human consciousness tells this truth absolutely, however it may be supposed to class with some other conceptions in the dim-lighted chambers of the logical understanding. By that same faculty by which I know that I exist, do I also know that I am *free*. “I am *free*, this is the revelation of consciousness.”—FICHTE.

“I am conscious, not merely of the phenomena of volition, but of myself as producing it, and as producing it by choice, with a power to choose the opposite alternative.”—MANSEL: “Proleg.,” p. 282.

“The mind has, and must have this power of free choice, so says consciousness. Cause in the mind is not of the same character as causation in nature.”—McCOSH: “Intuitions,” p. 312.

“I am conscious of the sovereign power of the will. I feel in myself, before its determinations, the force that can determine itself in such a manner or in such another. At the same time that I will this or that, I am equally conscious of the power to will the opposite. I am conscious of being master of my resolution, of the ability to arrest it, continue it, or repress it. When the voluntary act ceases, the consciousness of the power ceases not, it remains with the power itself, which is superior to all manifestations.”—COUSIN: “True, Beautiful and Good,” p. 283.



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